

COLLEGE BULLETINS.

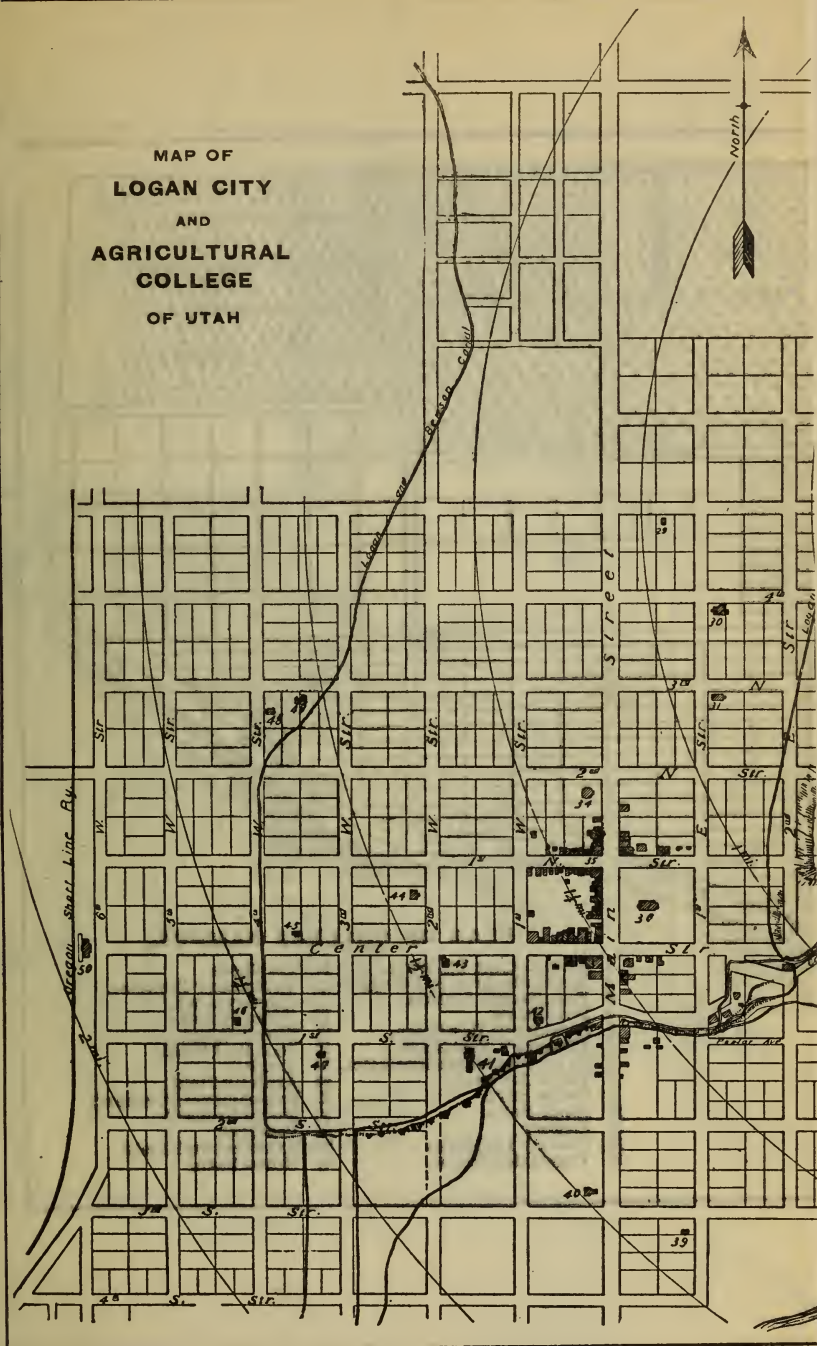
Issued Quarterly. Vol. 7, No. 2

July, 1907.

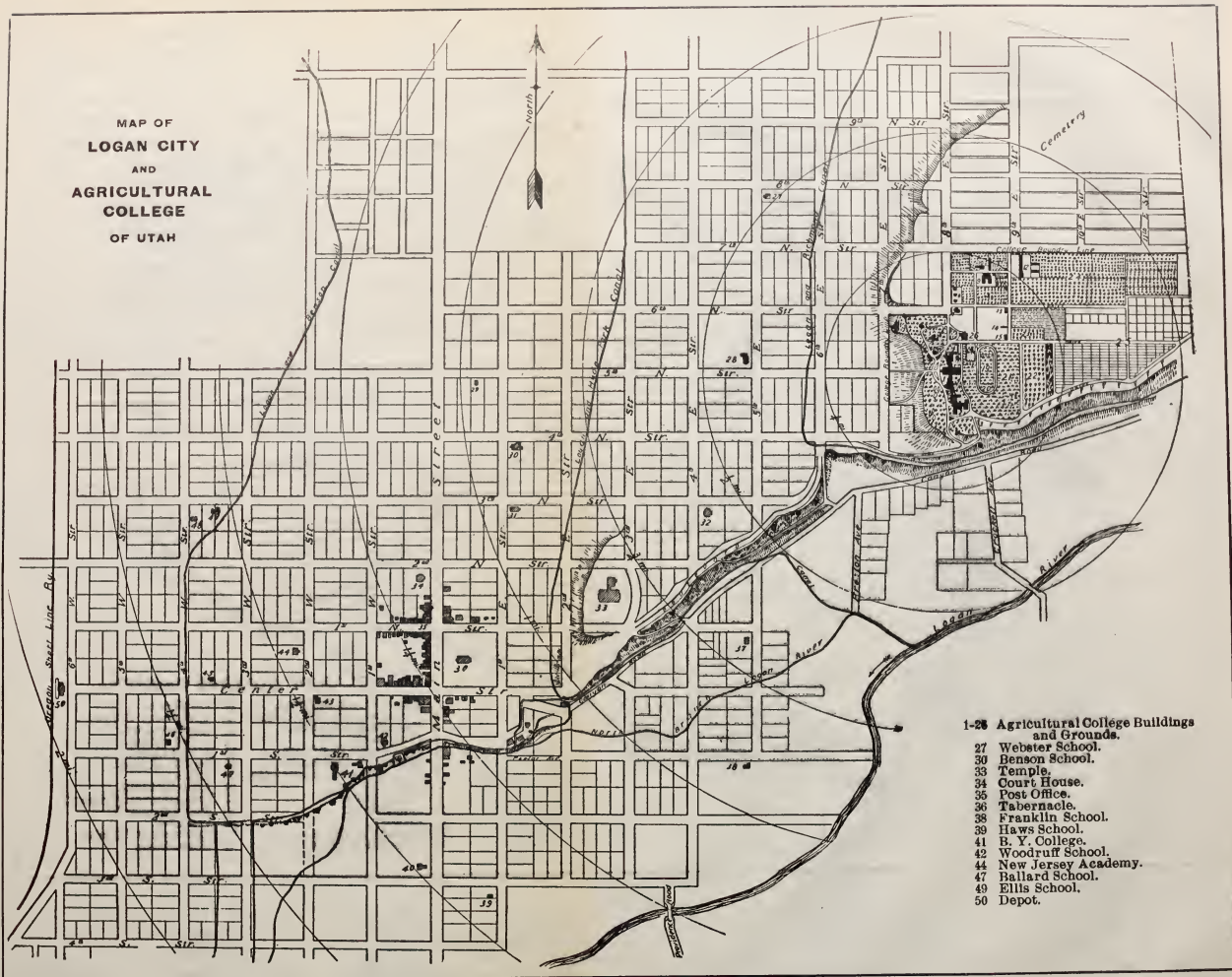
CATALOGUE  
OF THE  
AGRICULTURAL COLLEGE  
OF UTAH  
FOR  
1907-1908



MAP OF  
LOGAN CITY  
AND  
AGRICULTURAL  
COLLEGE  
OF UTAH



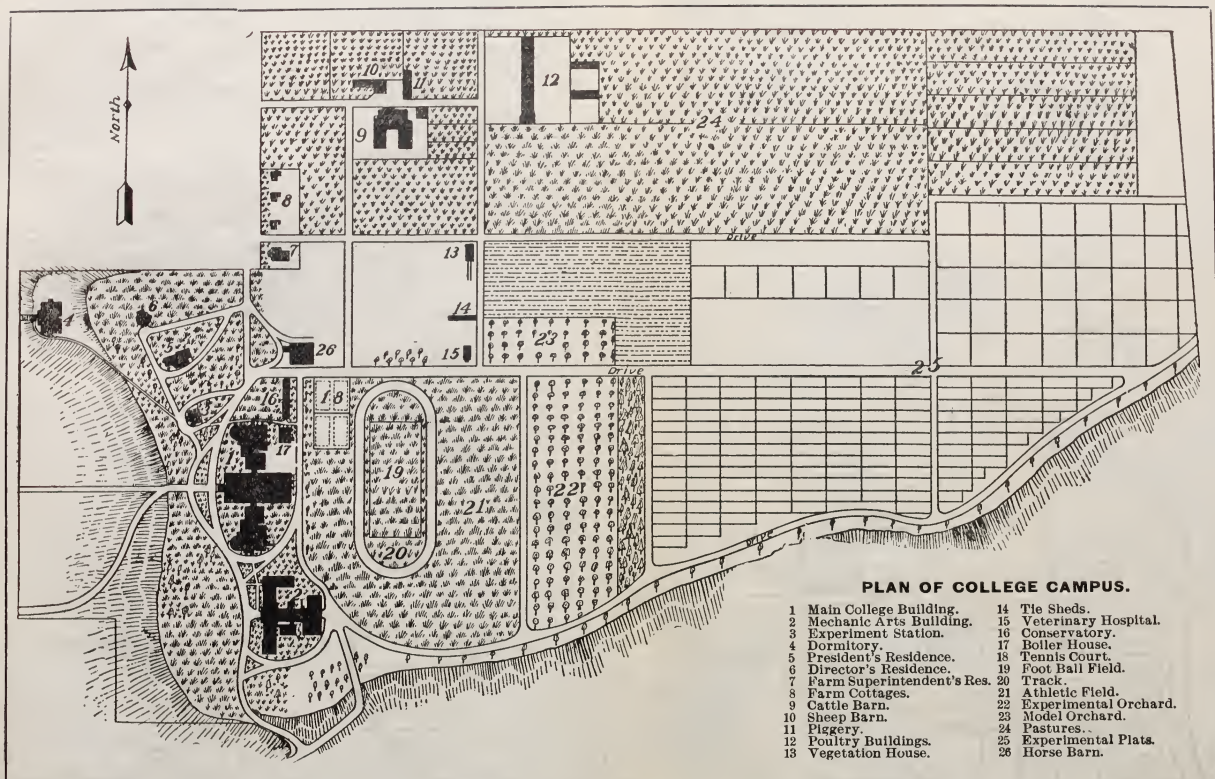
MAP OF  
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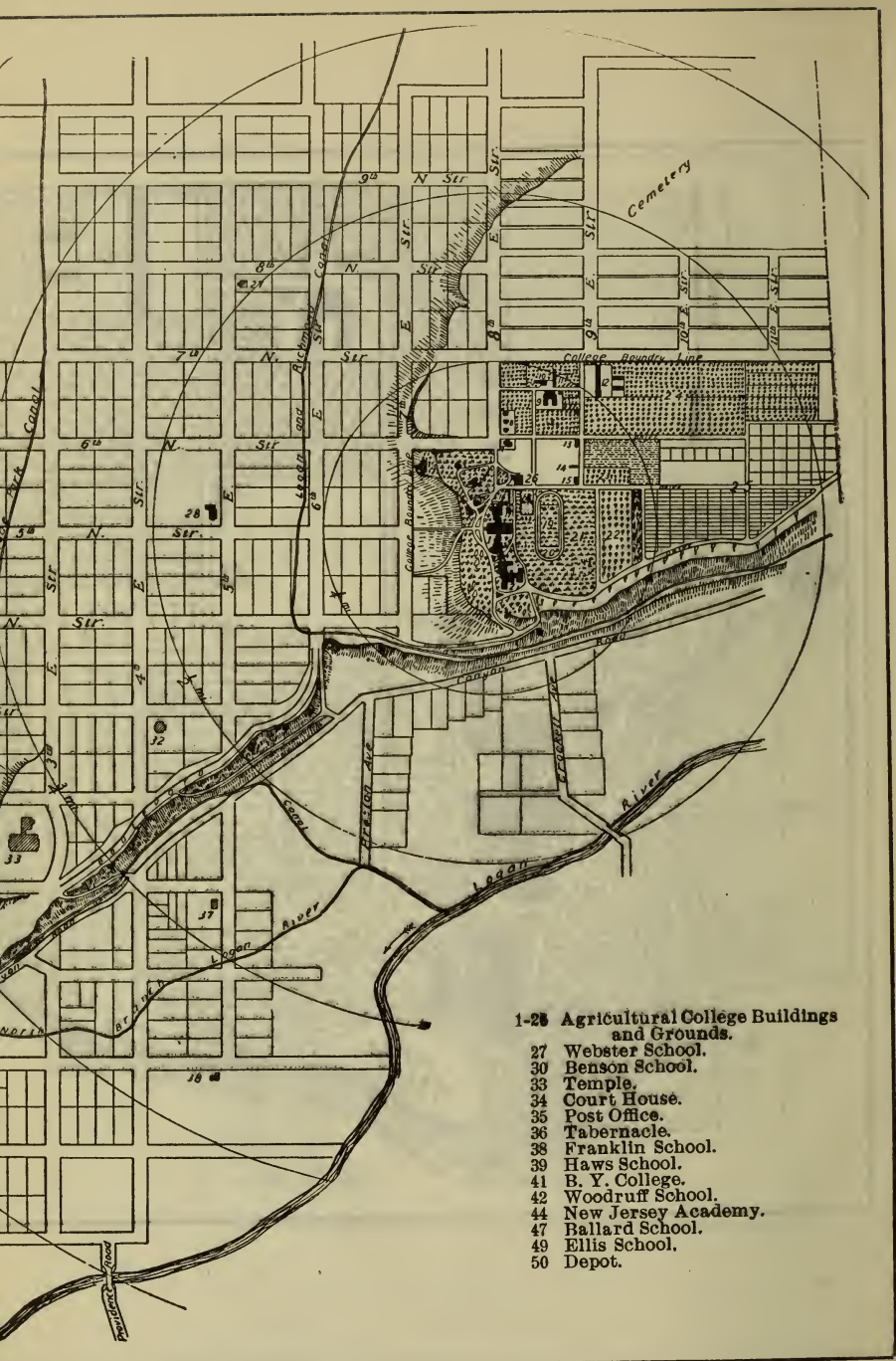


1-28 Agricultural College Buildings  
and Grounds.

- 27 Webster School.
- 30 Benson School.
- 33 Temple.
- 34 Court House.
- 35 Post Office.
- 36 Tabernacle.
- 38 Franklin School.
- 39 Hays School.
- 41 B. Y. College.
- 42 Woodruff School.
- 44 New Jersey Academy.
- 47 Ballard School.
- 49 Ellis School.
- 50 Depot.







**1-25 Agricultural College Buildings  
and Grounds.**

- 27 Webster School.
- 30 Benson School.
- 33 Temple.
- 34 Court House.
- 35 Post Office.
- 36 Tabernacle.
- 38 Franklin School.
- 39 Haws School.
- 41 B. Y. College.
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- 49 Ellis School.
- 50 Depot.

CATALOGUE

OF THE

AGRICULTURAL COLLEGE

OF UTAH

FOR

1907-1908

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With List of Students for 1906-1907

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LOGAN, UTAH

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Published by the College  
July, 1907

1907.

[illegible]

1908.

JANUARY

S	M	T	W	T	F	S
..	5	6	7	8	9	10
12	13	14	15	16	17	18
19	20	21	22	23	24	25
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APRIL

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JULY

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OCTOBER

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FEBRUARY

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MAY

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AUGUST

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NOVEMBER

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MARCH

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DECEMBER

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27	28	29	30	31	..	..
..	..	..	..	..	..	..



## COLLEGE CALENDAR, 1907-1908

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### FIRST TERM.

1907.

September 17, Tuesday:	Entrance examinations. Registration of former students, and of new students who are admitted on certificates.
September 18, Wednesday: (at noon)	Instruction begins.
November 27, Wednesday: (at noon)	Thanksgiving recess begins.
December 3, Tuesday:	Instruction resumed.
December 20, Friday: (at noon)	Holiday recess begins.

1908.

January 7, Tuesday:	Instruction resumed. Winter courses begin.
January 25, Saturday:	First term ends. Winter course in Agriculture ends.

### SECOND TERM.

January 28, Tuesday:	Second term begins.
February 22, Saturday:	Washington's birthday.
March 28, Saturday:	Winter courses in Domestic Arts and in Mechanic Arts end.
April —, ———:	Arbor Day.
May 31, Sunday.	Baccalaureate sermon.
June 1, Monday:	Class day.
June 2, Tuesday:	Commencement. Alumni Reunion.
June 3, Wednesday:	Summer vacation begins.



## BOARD OF TRUSTEES

---

LORENZO N. STOHL.....	Brigham
THOMAS SMART .....	Logan
SUSA YOUNG GATES.....	Salt Lake City
JOHN Q. ADAMS.....	Logan
ELIZABETH C. McCUNE.....	Salt Lake City
J. W. N. WHITECOTTON.....	Provo
DR. A. S. CONDON.....	Ogden

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ELIZABETH C. McCUNE.....	Vice President
JOHN A. BEXELL.....	Secretary
JOHN L. COBURN.....	Assistant Secretary
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JOHN T. CAINE, JR.....	Auditor

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#### *Committee on Mechanic Arts.*

Thomas Smart, J. W. N. Whitecotton and John Q. Adams.

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Susa Y. Gates, Mrs. A. W. McCune and A. S. Condon.

#### *Committee on Commerce.*

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#### *Committee on Experiment Station.*

Thomas Smart, Lorenzo N. Stohl and John Q. Adams.

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J. W. N. Whitecotton, A. S. Condon and Susa Y. Gates.

#### *Visitorial Committee.*

Mrs. A. W. McCune, Susa Y. Gates and J. W. N. Whitecotton.

#### *Auditor.*

J. W. N. Whitecotton.

# Officers of Administration and Instruction

## THE COLLEGE FACULTY

[Arranged in Groups in the Order of Seniority of Appointment.]

---

JOHN ANDREAS WIDTSOE, A. M., Ph D.,

PRESIDENT.

*Professor of Chemistry.*

WILLARD SAMUEL LANGTON, B. S.,

*Professor of Mathematics.*

ELMER DARWIN BALL, M. Sc., Ph. D.,

DIRECTOR OF EXPERIMENT STATION.

*Professor of Zoology and Entomology.*

EDWARD WILLIAM ROBINSON,

*Professor of Political Science and Transportation.*

JOHN ANDREW BEXELL, A. M.,

SECRETARY, BOARD OF TRUSTEES,

*Professor of Commerce.*

GEORGE WASHINGTON THATCHER,

*Professor of Music.*

ROBERT STARR NORTHROP, B. S.,

*Professor of Horticulture and Botany.*

GEORGE THOMAS, A. M., Ph. D.,

*Professor of History and Economics.*

WILLIAM PETERSON, B. S.,  
*Professor of Geology and Physics.*

WALTER WESLEY McLAUGHLIN, B. S.,  
*Professor of Irrigation and Drainage.*

HYRUM JOHN FREDERICK, D. V. M.,  
*Professor of Veterinary Science.*

CHRISTIAN LARSEN, M. S. A.,  
*Professor of Dairy Husbandry.*

FRANK RUSSELL ARNOLD, A. M.,  
*Professor of Modern Languages.*

HOWARD R. PERRY, CAPT. U. S. A.,  
*Professor of Military Science and Tactics.*

JOSEPH WILLIAM JENSEN, S. B.,  
*Acting Director of Mechanic Arts: Professor of Irrigation  
Engineering.*

JAMES CHRISTIAN HOGENSEN, M. S. A.,  
*Professor of Agronomy.*

CHRISTIAN MORTEN LARSEN, A. M.,  
*Professor of English.*

FRED M. WALKER, B. S.,  
*Professor of Physical Education.*

SAMUEL HENRY GOODWIN, B. D.,  
*Professor of Economic Ornithology.*

LEWIS ALFORD MERRILL, B. S.,  
*Superintendent of Agricultural Extension Work.*

BLANCHE COOPER, B. S.,  
*Associate Professor of Domestic Science.*

EDWARD GAIGE TITUS, M. S.,  
*Associate Professor of Zoology and Entomology.*

RHODA BOWEN COOK,  
*Assistant Professor of Domestic Arts.*

HENRY JEROME STUTTERD,\*  
*Assistant Professor of Art.*

ROBERT STEWART, B. S.,  
*Assistant Professor of Chemistry.*

JOHN THOMAS CAINE, III., M. S. A.,  
*Assistant Professor of Animal Husbandry.*

ELMER GEORGE PETERSON, B. S.,  
*Assistant Professor of Zoology and Entomology.*

CALVIN FLETCHER, B. Pd.,  
*Assistant Professor of Art.*

JOHN THOMAS CAINE, JR., B. S.,  
REGISTRAR AND SECRETARY OF FACULTY.  
*Instructor in English.*

ELIZABETH CHURCH SMITH, B. L.,  
*Librarian.*

AUGUST J. HANSEN,  
*Foreman in Carpentry.*

EDWARD PARLEY PULLEY, B. S.,  
*Instructor in Engineering.*

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\*On leave of absence.

AMANDA HOLMGREN, B. S.,\*  
*Instructor in English.*

JOSEPH EAMES GREAVES, B. S.,  
*Instructor in Chemistry.*

WILLIAM ARTHUR JENSEN,  
*Instructor in Stenography and Typewriting.*

DAVID EDMUND STEPHENS, B. S.,  
*Instructor in History.*

CHARLES WALTER PORTER, B. S.  
*Instructor in Chemistry.*

NETTIE THATCHER SLOAN,  
*Instructor in Music.*

LOUIE EUGENIE LINNARTZ,  
*Instructor in Music.*

ROY RUDOLPH, B. S.,  
*Instructor in Mathematics.*

GERTRUDE VIBRANS,  
*Instructor in Sewing.*

JONATHAN SOCKWELL POWELL,  
*Instructor in Drawing.*

FRANK S. HARRIS, B. S.,  
*Instructor in Chemistry.*

N. ALVIN PETERSEN, A. B.,  
*Instructor in English.*

---

\*On leave of absence.



RENA BAKER MAYCOCK,

*Instructor in English.*

SARA HUNTSMAN,

*Instructor in English.*

INEZ POWELL, B. S.,

*Instructor in Domestic Science.*

AARON NEWHEY,

*Instructor in Forging.*

CHARLOTTE KYLE, A. M.,

*Instructor in English and History.*

JOHN L. COBURN, B. S.,

*Instructor in Mathematics.*

JOHN D. VAN WAGONER,

*President's Private Secretary.*

FRANK THATCHER,

*Assistant in Carpentry.*

J. R. HORTON,

*Assistant in Entomology.*

JOSEPH SPRAGUE BELL,

*Assistant in Commerce.*

MYRTLE BALLARD,

*Assistant in Domestic Science.*

JEAN CROOKSTON,

*Assistant in Sewing.*

WILLIAM A. FREW,

*Assistant in Forging.*

HOWARD P. MADSEN,

*Assistant in Carpentry.*

INEZ STRATFORD,

*Assistant in Domestic Science.*

MRS. EDNA S. DEHLIN,  
*Matron of Dormitory.*

SOPHIE MATHISEN,  
*Assistant in Secretary's Office.*

HATTIE SMITH,  
*Assistant in Library.*

ELLA STEWART,  
*Assistant in Registrar's Office.*

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CHARLES BATT,  
*Superintendent of Steam Heating and Water Works.*

RASMUS OLUF LARSEN,  
*Head Janitor.*

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The College Council is composed of the President of the faculty, the professors, associate professors, assistant professors and the Registrar. The President is chairman and the Registrar Secretary.

## EXPERIMENT STATION STAFF

---

ELMER DARWIN BALL,  
*Director and Entomologist.*

WALTER WESLEY McLAUGHLIN,  
*Irrigation Engineer.*

ROBERT STARR NORTHROP,  
*Horticulturist.*

HYRUM JOHN FREDERICK,  
*Veterinarian.*

JOHN T. CAINE, III.,  
*Animal Husbandman.*

CHRISTIAN LARSEN,  
*Dairyman.*

ROBERT STEWART,  
*Chemist.*

JAMES CHRISTIAN HOGENSEN,  
*Agronomist.*

SAMUEL H. GOODWIN,  
*Economic Ornithologist.*

EDWARD GAIGE TITUS,  
*Associate Entomologist.*

JOSEPH EAMES GREAVES,  
*Assistant Chemist.*

ELMER GEORGE PETERSON,  
*Assistant Entomologist.*

CHARLES W. PORTER,  
*Photographer.*

JOHN STEPHENS,  
*Assistant Agronomist.*

HENRY WALLACE CROCKETT,  
*Assistant Horticulturist.*

F. D. FARRELL,  
*Assistant Agronomist.*

FRANK S. HARRIS,  
*Assistant Chemist.*

## STANDING COMMITTEES

---

1907-1908.

The President of the College is *ex officio* a member of each standing committee.

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1. *Agriculture*.—President Widtsoe, Professors Ball, Northrop, C. Larsen, Hogensen.

2. *Domestic Science*.—Professors Cooper, Cook, Stewart.

3. *Commerce*.—Professors Bexell, Robinson and Thomas.

4. *Mechanic Arts*.—Professors Jensen, Langton, McLaughlin.

5. *General Science*.—Professors Thomas, C. M. Larsen, Northrop, Porter.

6. *Scholarship and Graduation*.—Professors Peterson, Arnold, Titus.

7. *Farmers' Institutes*.—Professors Ball, McLaughlin, Hogensen, Jensen, Cooper.

8. *College Publications*.—Professor C. M. Larsen, Mr. N. A. Peterson, Mrs. Maycock, Miss Huntsman.

9. *Amusements and Public Entertainments*.—Professors Robinson, Thatcher, Fletcher.

10. *Student Affairs*.—Professors Caine, Thomas, Mr. Stephens, Mr. N. A. Peterson, Mrs. Maycock, Miss Powell.

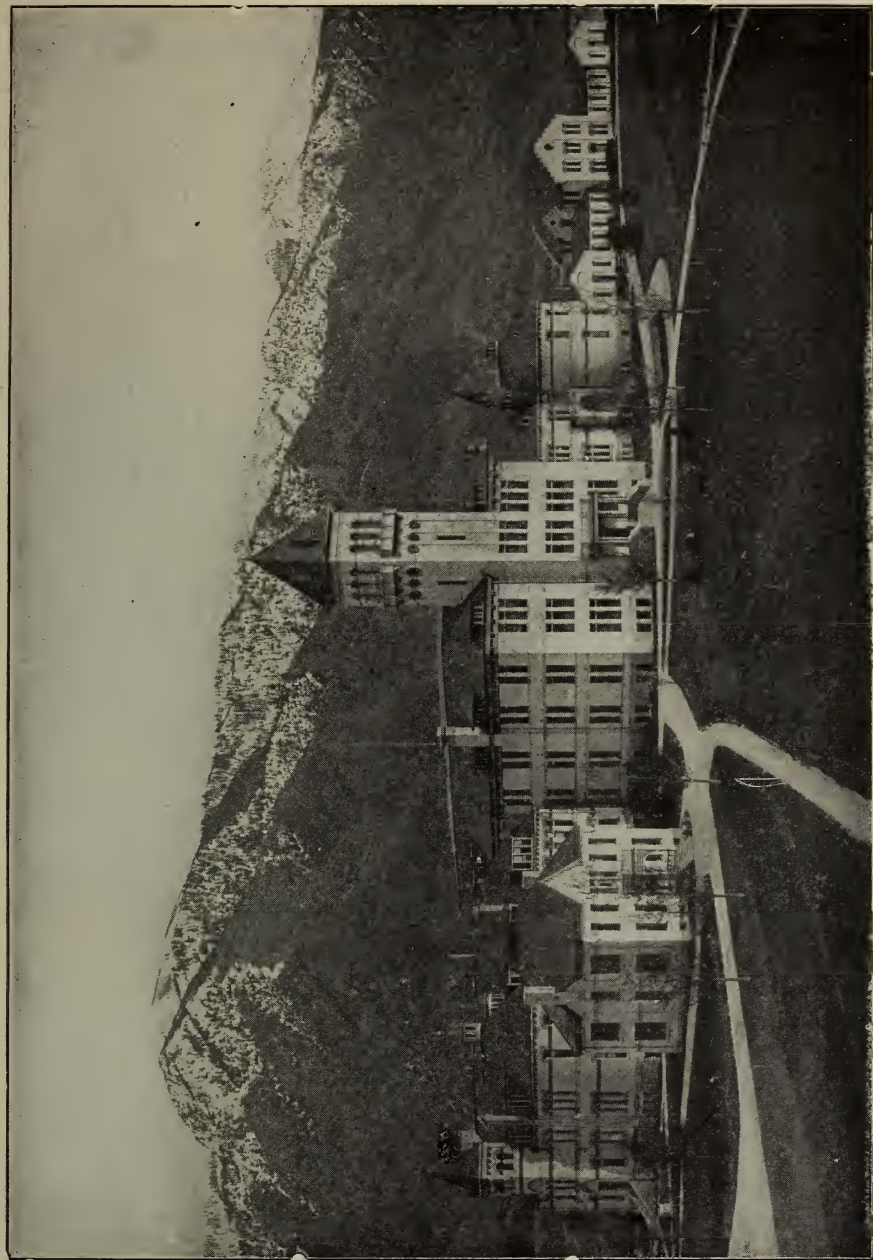
11. *Athletics*.—Professors Langton, Ball, W. Peterson, Caine.





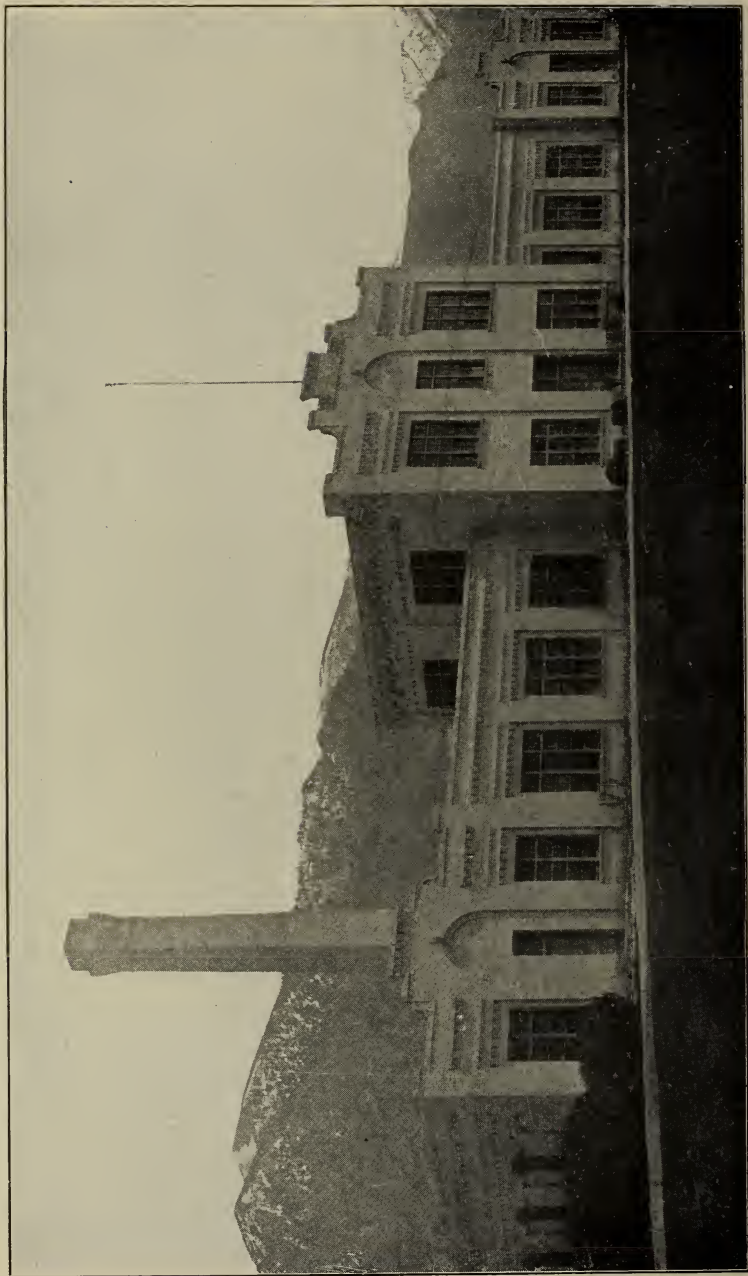






**GROUP OF AGRICULTURAL COLLEGE BUILDINGS**

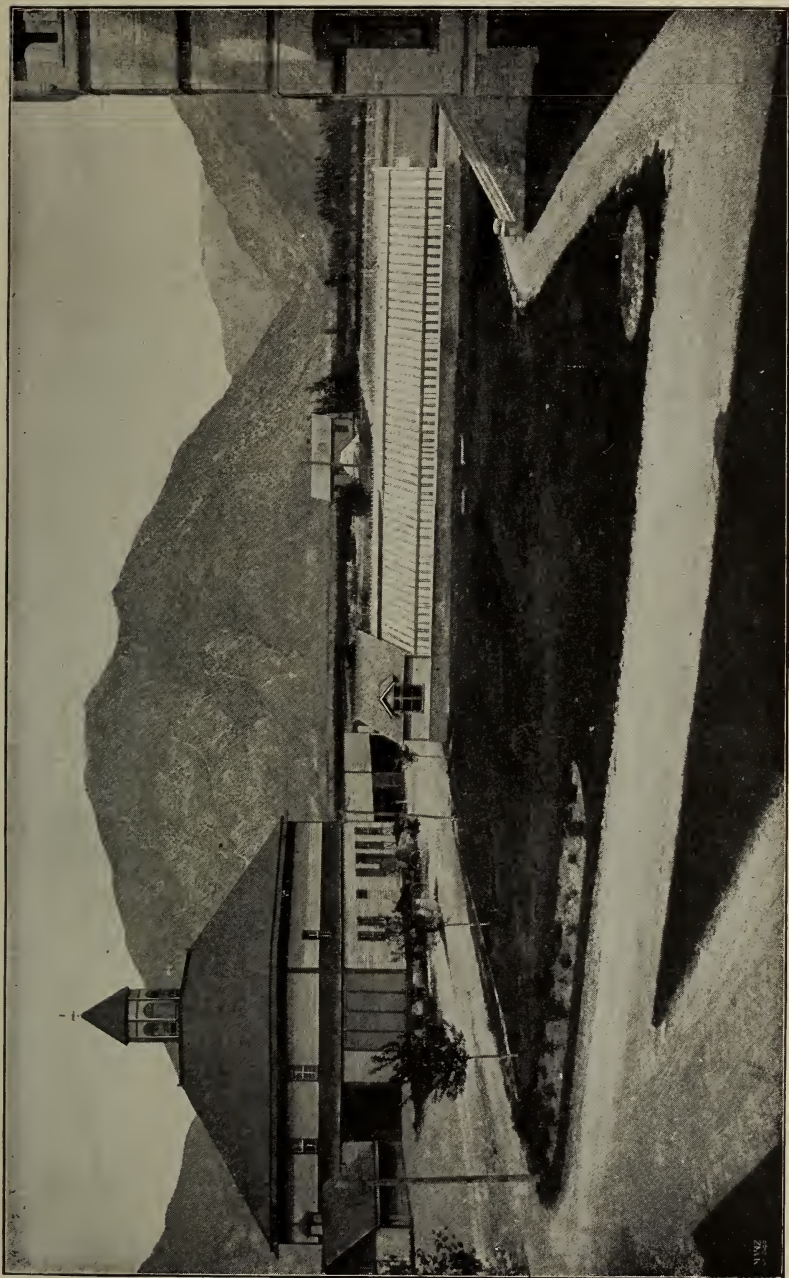
These are some of the Agricultural College Buildings. Come and visit them.



THE MECHANIC ARTS BUILDING—FRONT VIEW.

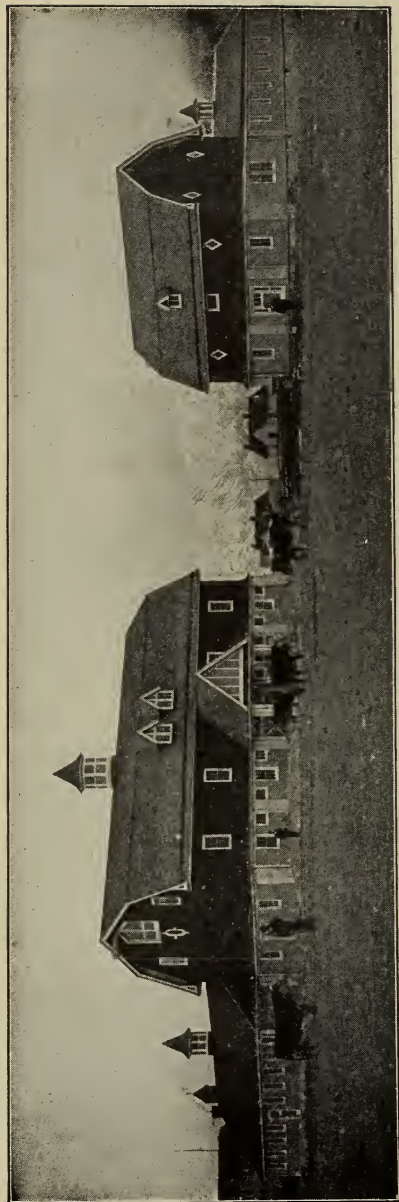
In which are the Carpenter, Blacksmithing, Machine and Foundry Shops. It is now splendidly equipped.





**HORSE BARN CONSERVATORY, VETERINARY HOSPITAL.**

Many intelligent people are looking toward Scientific Agriculture as a profession for themselves and their children.

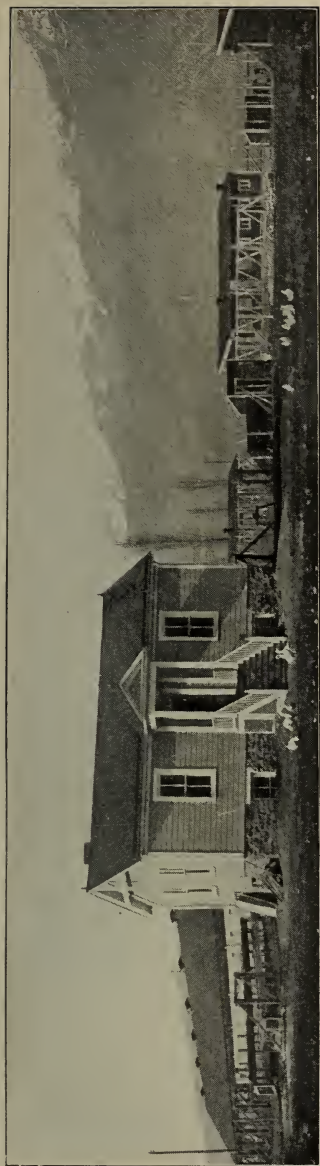


SHEEP BARN AND CATTLE BARN, FROM SOUTHWEST

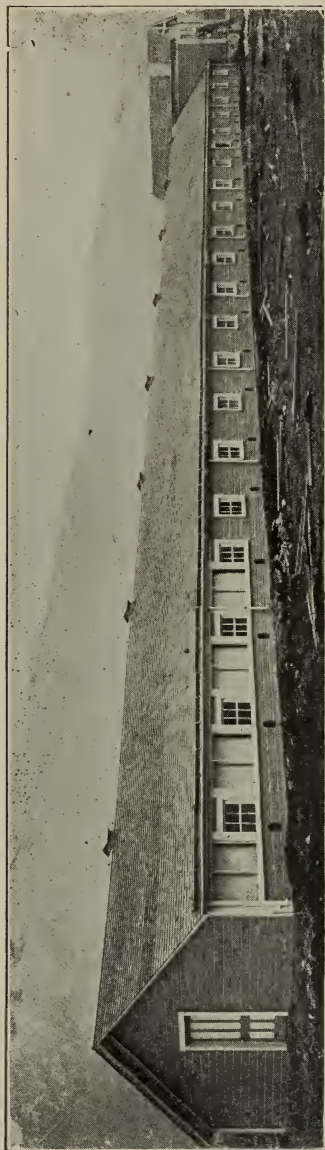


**SAME, FROM NORTHEAST.**





POULTRY BUILDINGS.



REAR VIEW OF POULTRY BUILDING BEFORE COMPLETION OF YARDS

Women as well as men can follow poultry keeping as a business. We are still shipping poultry products into this State.  
Learn the business,



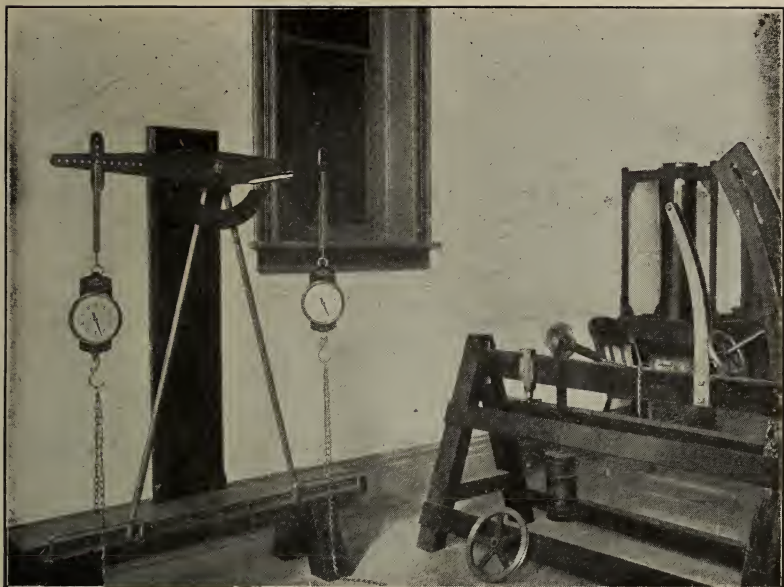
### **COLLEGE DORMITORY.**

Where students live at actual cost. The dormitory is on the College campus.  
Make early application.



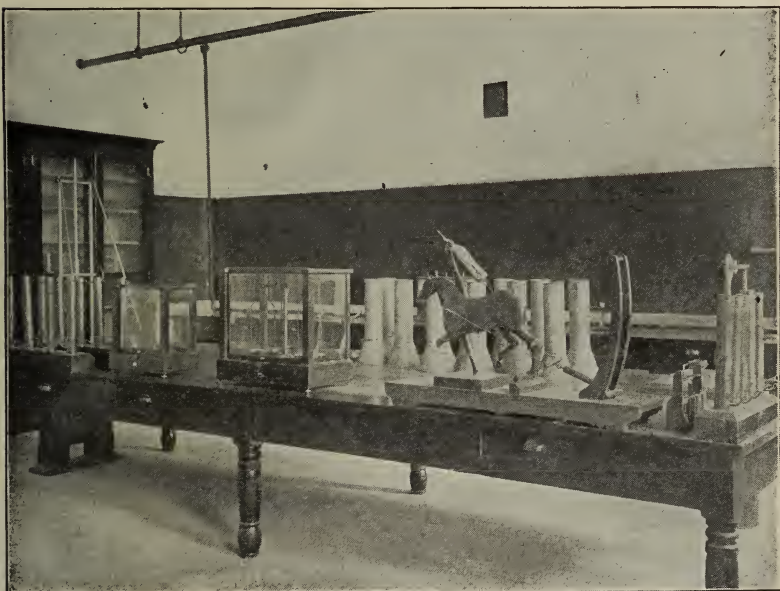
### **VEGETATION HOUSE FOR EXPERIMENTAL WORK IN AGRONOMY AND IRRIGATION**

The country is calling for more agricultural experts than it can produce.  
Look ahead, and become one of them.



**CORNER OF AGRICULTURAL PHYSICS LABORATORY.**

Present-day learning has created several new professions. One of them in Agriculture.



**CORNER OF AGRICULTURAL PHYSICS LABORATORY.**

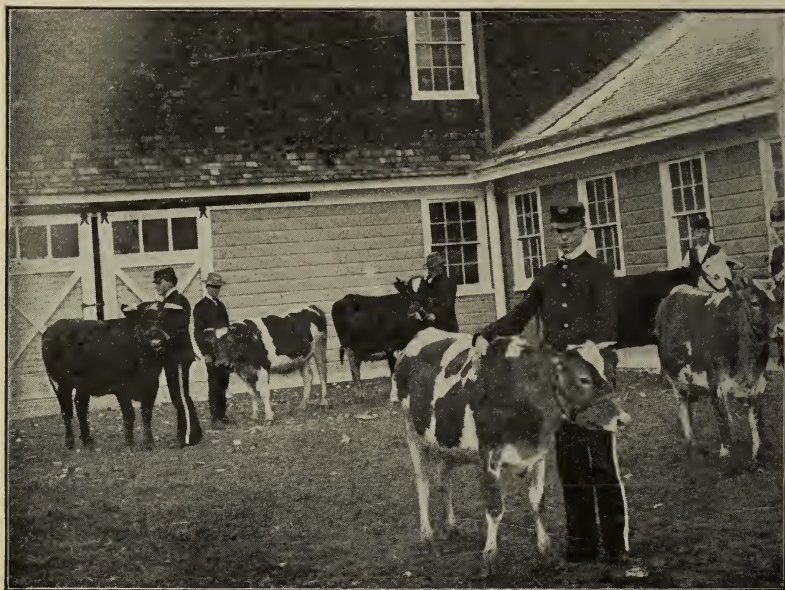
Science has been applied to agriculture until soils and plants and animals can be made to do the will of the Trained Farmer.





### CLASS IN STOCK-JUDGING.

This is a good training for the powers of Observation and Discrimination.  
It will help in life.



### COLLEGE PURE-BRED CATTLE—SHORTHORN, GUERNSEY, HOLSTEIN, HEREFORD.

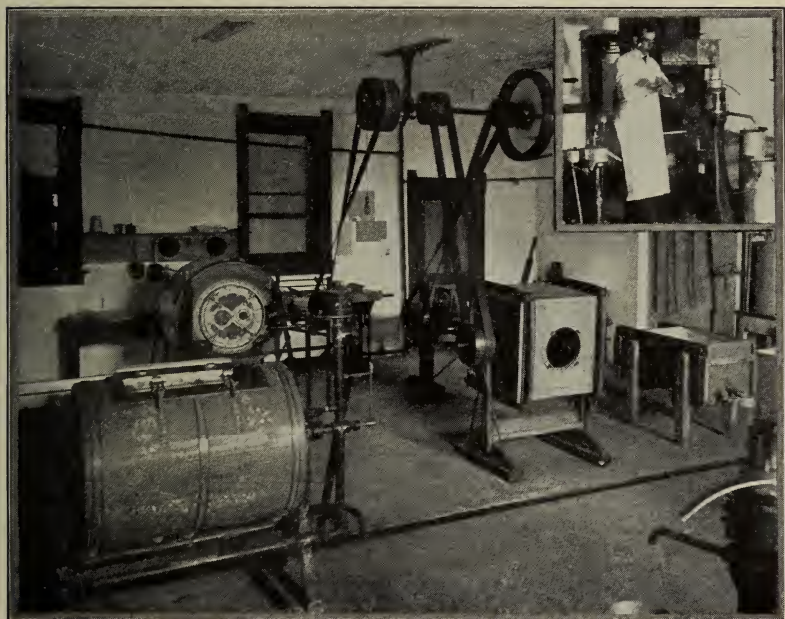
The Scientific Farmer is the equal of any professional man—lawyer, doctor or preacher.





DAIRY—SHOWING SEPARATORS AND BABCOCK TEST.

You must learn *to do*, as well as *how to do*.



SECTION OF COLLEGE DAIRY.

Dairying will grow very rapidly in the future. Experts are needed, but few are prepared.



#### **HORTICULTURAL STUDENTS IN ORCHARD.**

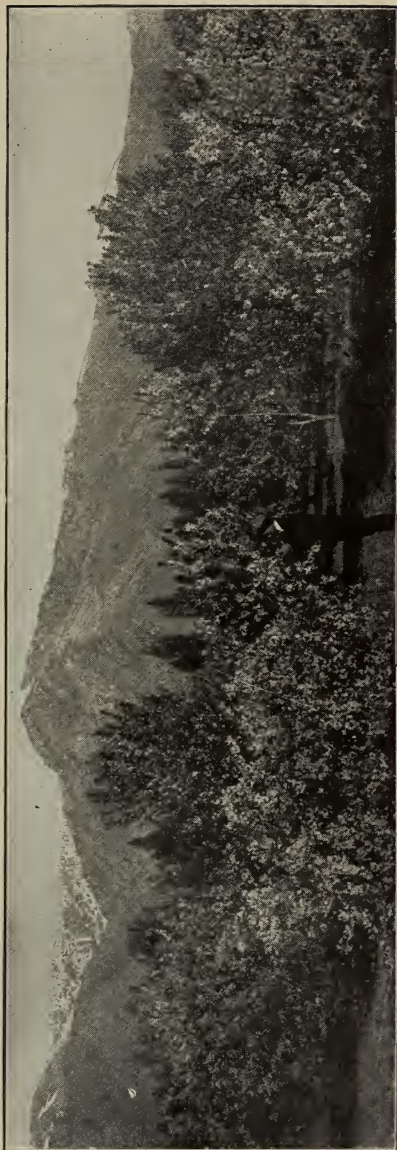
The development of Agriculture will make it possible for every farmer to  
earn a handsome income and at the same time live  
a Healthful, Happy Life.





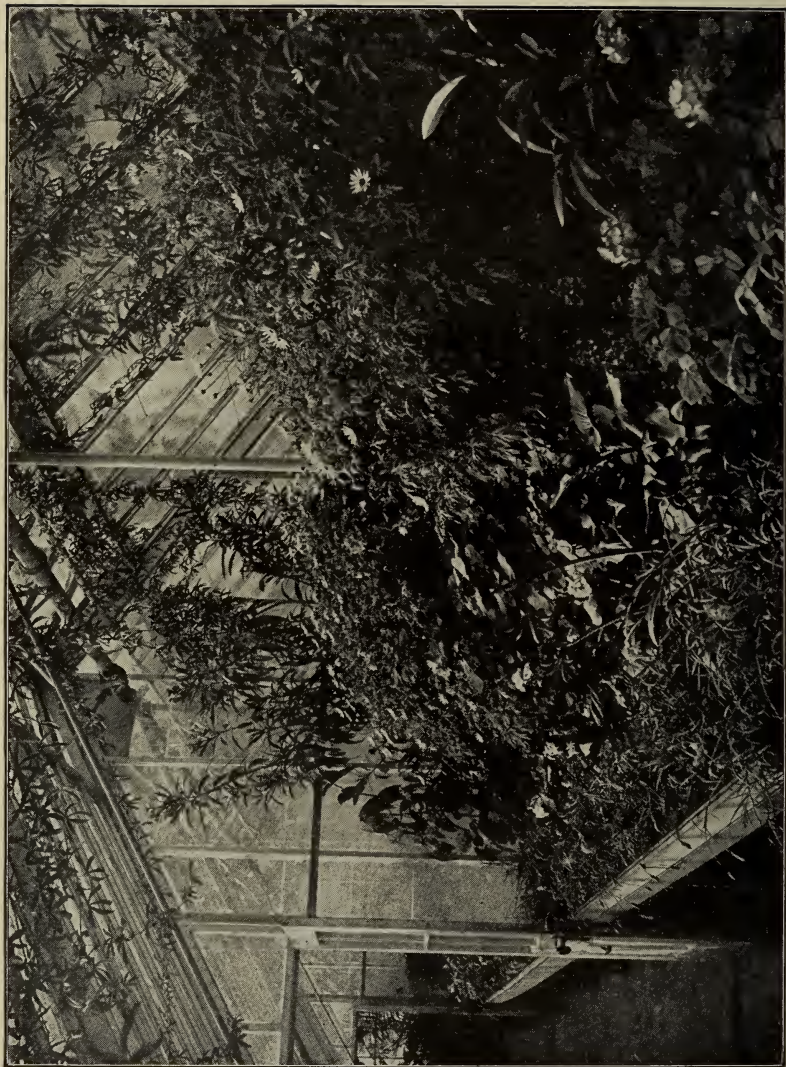
# ORCHARD WITH WINDBREAK IN THE DISTANCE

The only serious drawback to the onward march of modern agriculture is the lack of Trained Workers.



# VIEW IN COLLEGE ORCHARD

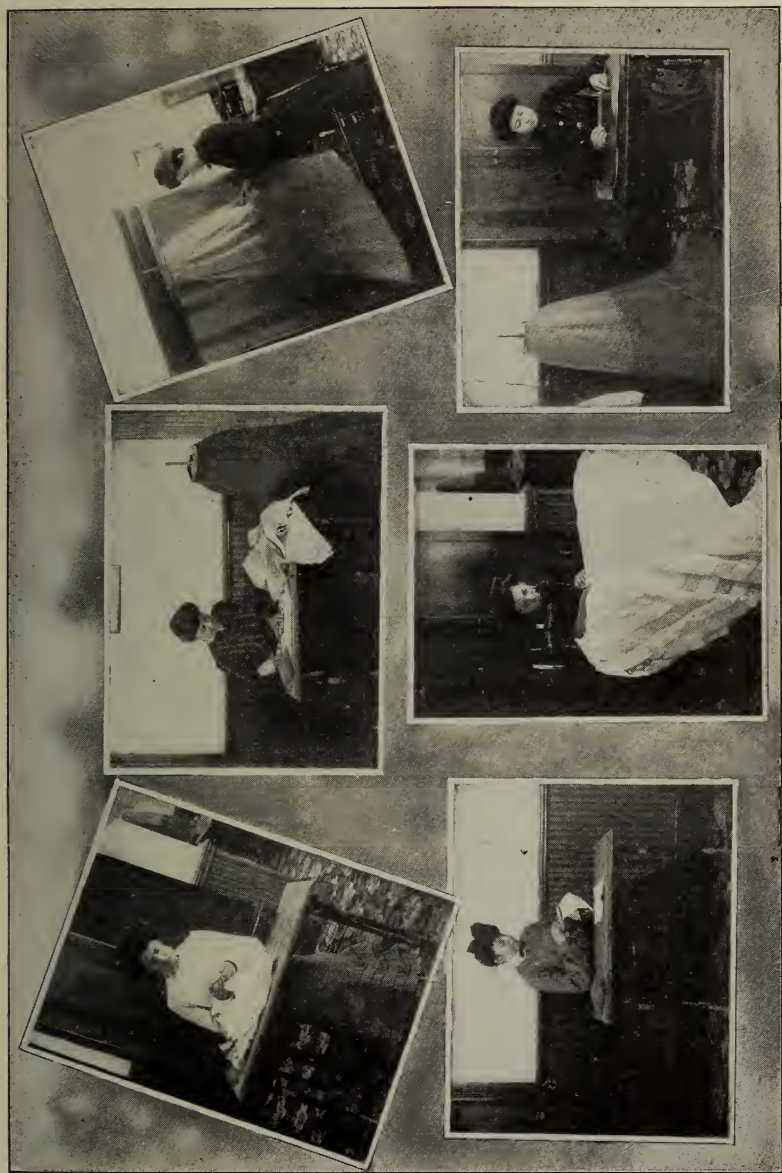
Why don't you brace up, forget your thousand-year-old prejudices and study Agriculture?



VUE OF CONSERVATORY.

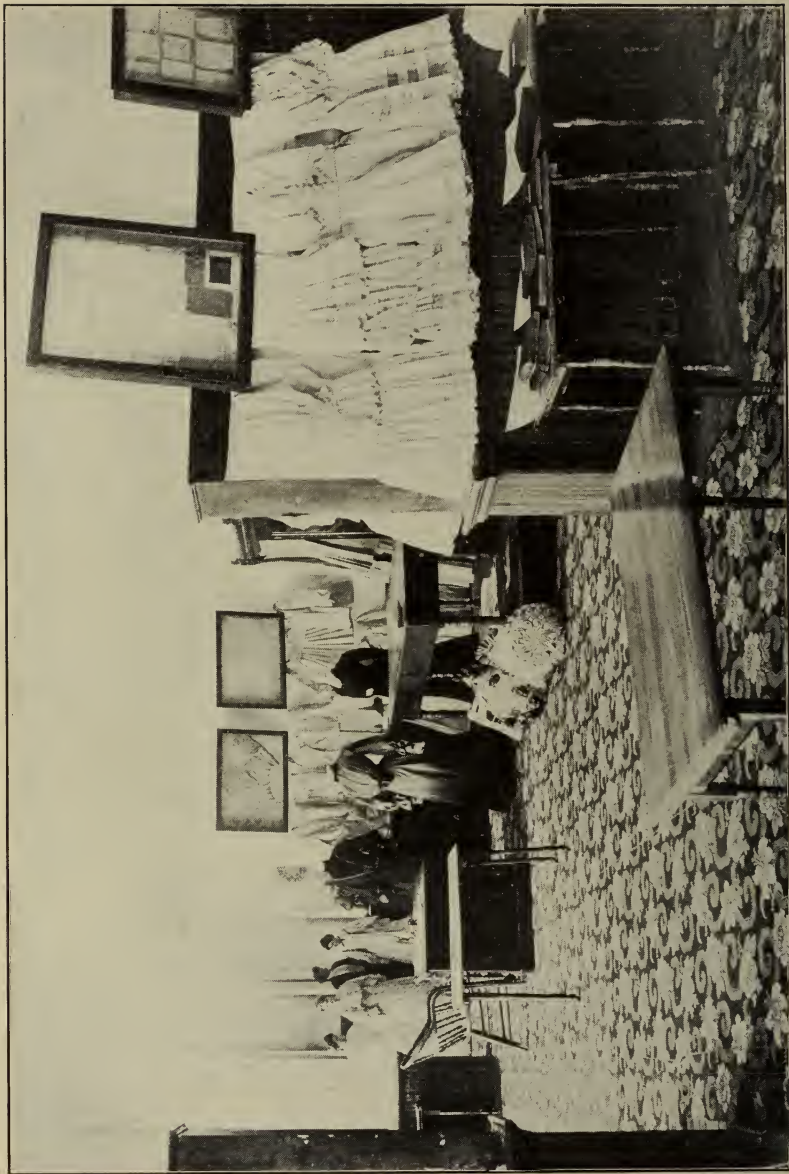
The day of the farmer-slave is passing; the day of the farmer-master is upon us.





# VIEW IN COLLEGE SEWING ROOMS.

Domestic Art is more than Sewing; Domestic Science is more than Cooking; woman's work, in the future, is more than Humdrum Routine.



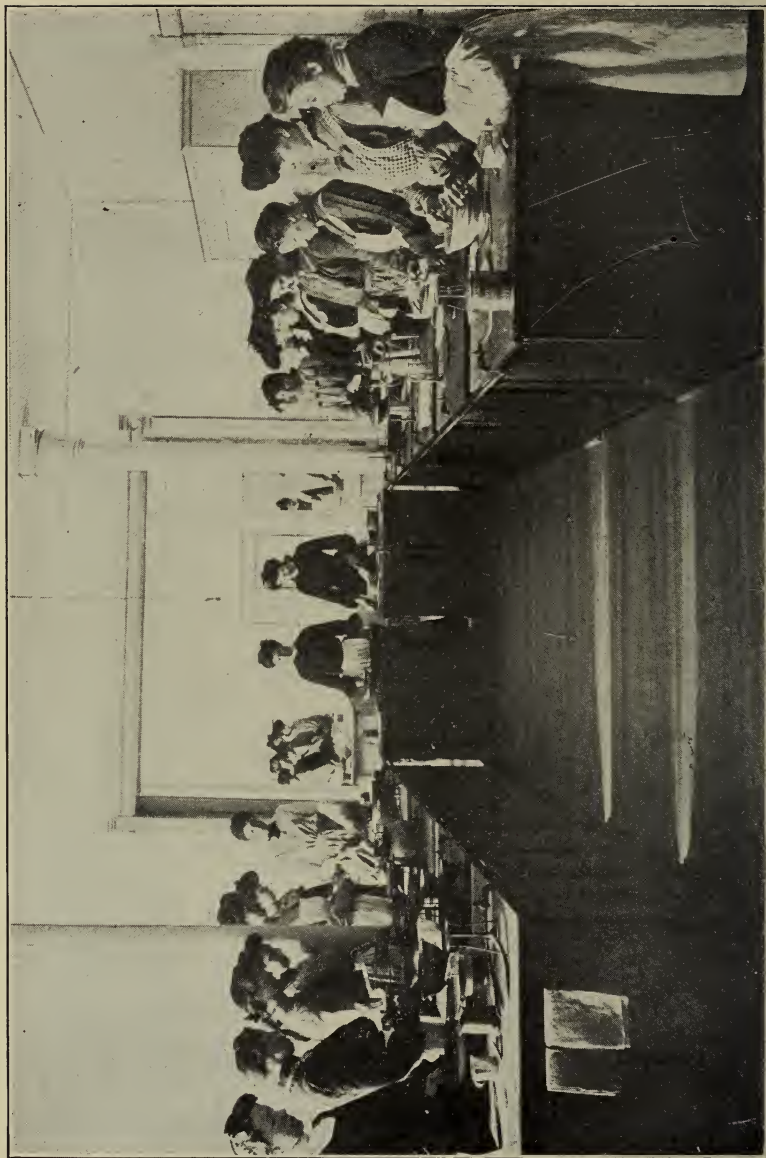
COLLEGE SEWING ROOMS, WITH SAMPLES OF STUDENTS' WORK.  
Acquire power over your work—then you will be happy. That's how *men* manage to keep happy.





**SAMPLES OF STUDENTS' WORK IN SEWING.**

Woman's advancement is measured by the taste and art of her wearing apparel.



VIEW IN COLLEGE KITCHENS.

What a blessed truth that the light of science has crept into the lives of women to glorify and dignify the work of the Home.



1. STUDENT MAKING CAKE. 2. STUDENT MAKING BREAD. 3. STUDENT MAKING PIE. 4. SAMPLES OF FRUIT BOTTLED BY STUDENTS. 5. SAMPLES OF CAKE AND BREAD.

Domestic Science is the science of Home Making, including all the arts and graces that belong to Developed Womanhood.





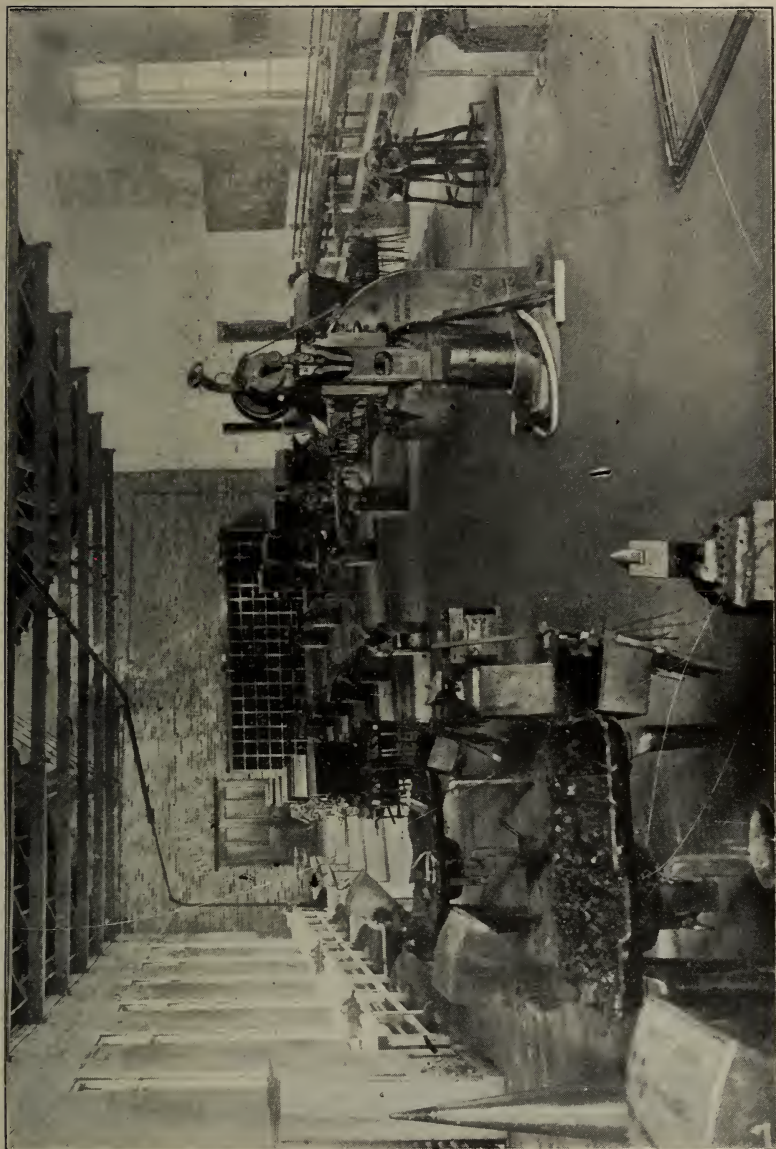
#### LAUNDRY—STUDENTS IRONING.

The prime purpose of Domestic Science is to make women contented with housework by giving them an Intelligent Mastery of it.



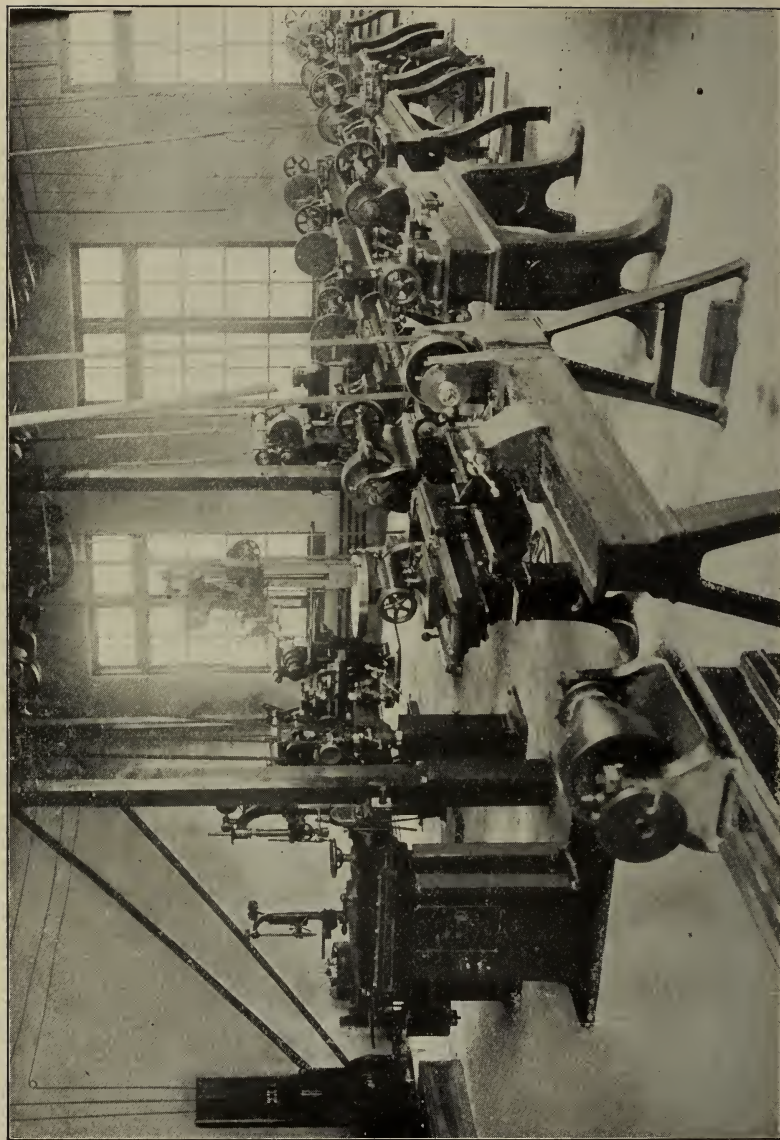
#### LAUNDRY—A WASHING LESSON.

There is a Great Demand for Teachers of Domestic Science. Talk with some of the girls who have taken the course.



### FORGE ROOM

Education has advanced, for it should fit men for *to-day* and train them for *to-morrow*.



VIEW OF METAL-WORKING MACHINE ROOM.

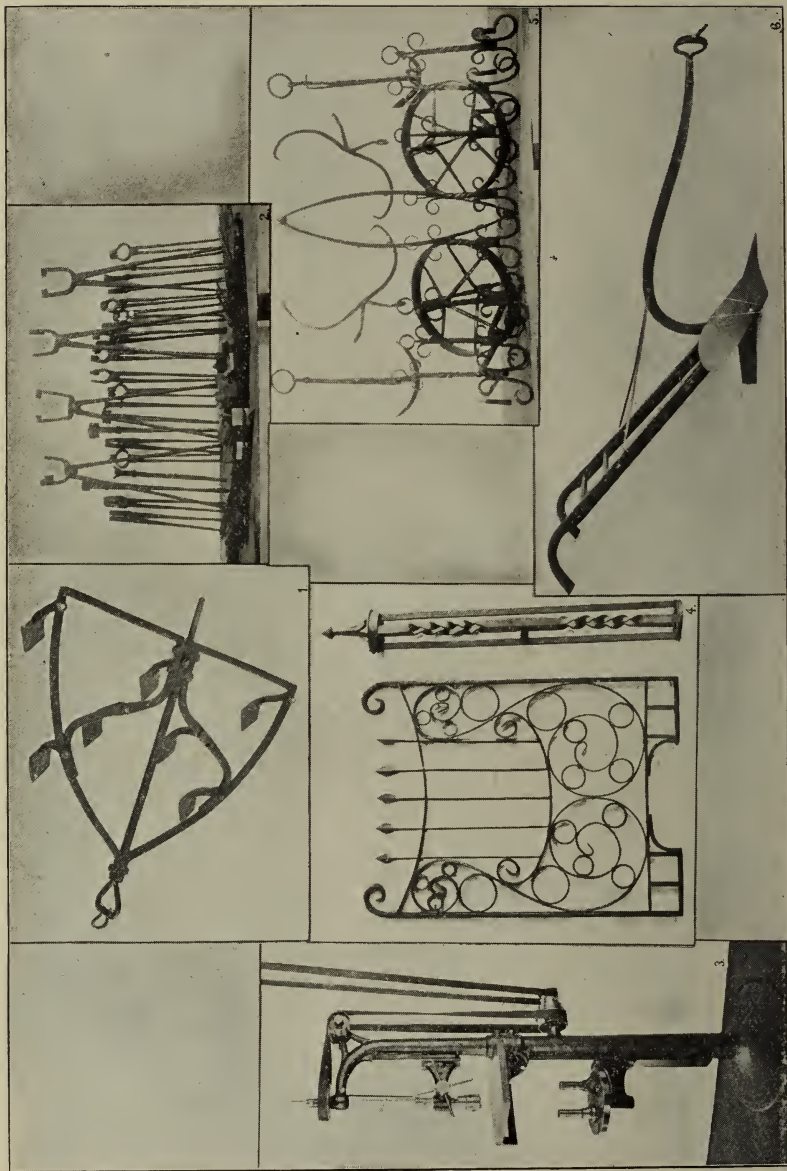
It matters little what a man studies, providing it be a branch of truth and that he study it diligently.





### WOOD-WORKING MACHINE ROOM.

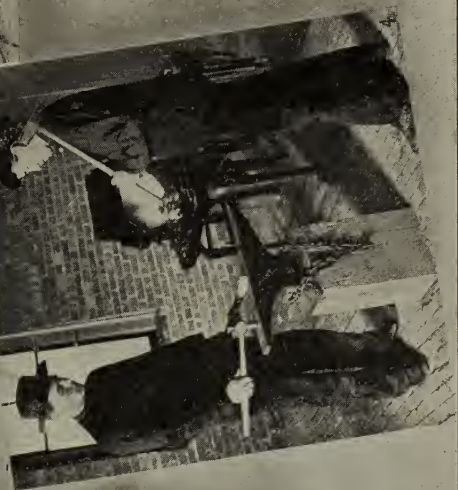
The newest education is industrial in its tendency, and it dignifies labor; but it is not narrow, for it rests its work on a basis of broad culture.



SAMPLE EXERCISES BY STUDENTS IN MECHANIC ARTS. FORGING AND MACHINE WORK.  
 Don't forget the *newest* education. It trains the head, heart and hand.



2



3

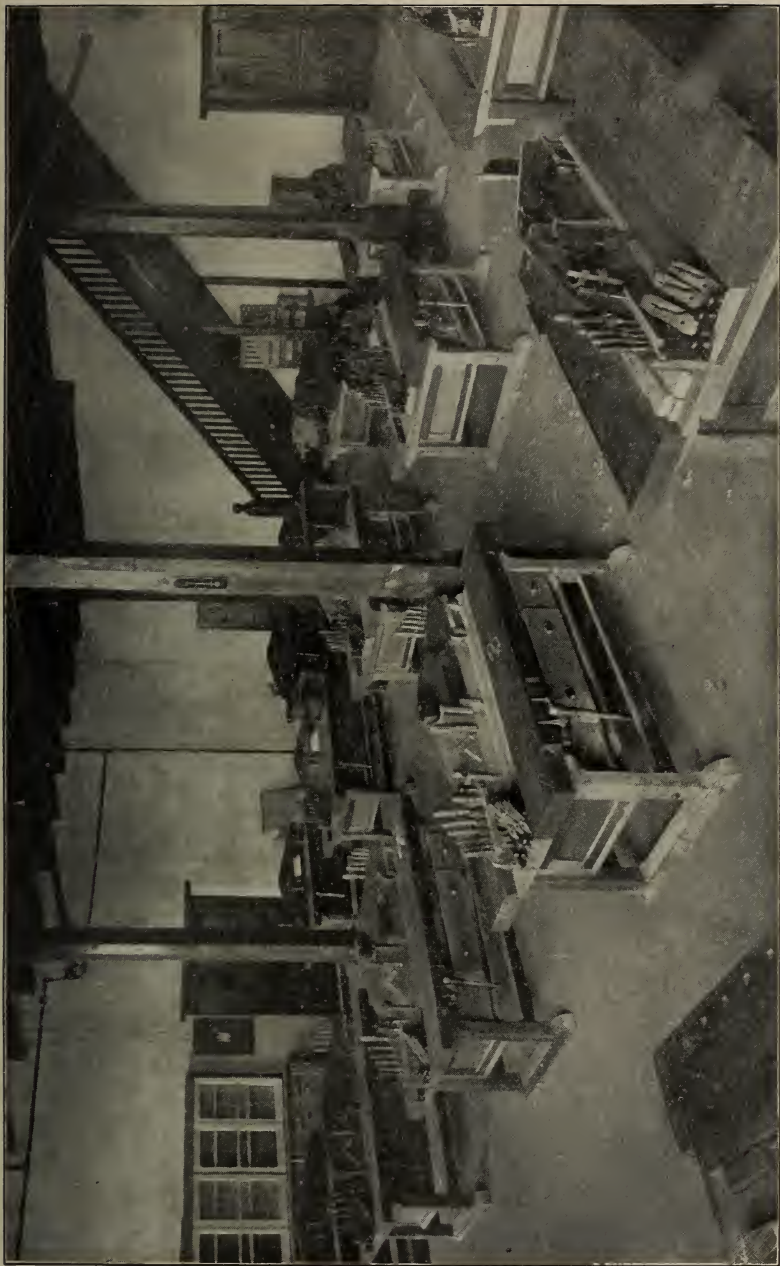
1. STUDENT AT MILLING MACHINE. 2. STUDENTS AT POWER HAMMER. 3. STUDENTS AT LATHE. 4. STUDENTS AT FORGE.

You must understand distinctly that the college is more than a Manual Training School. It prepares for the highest work in any direction.



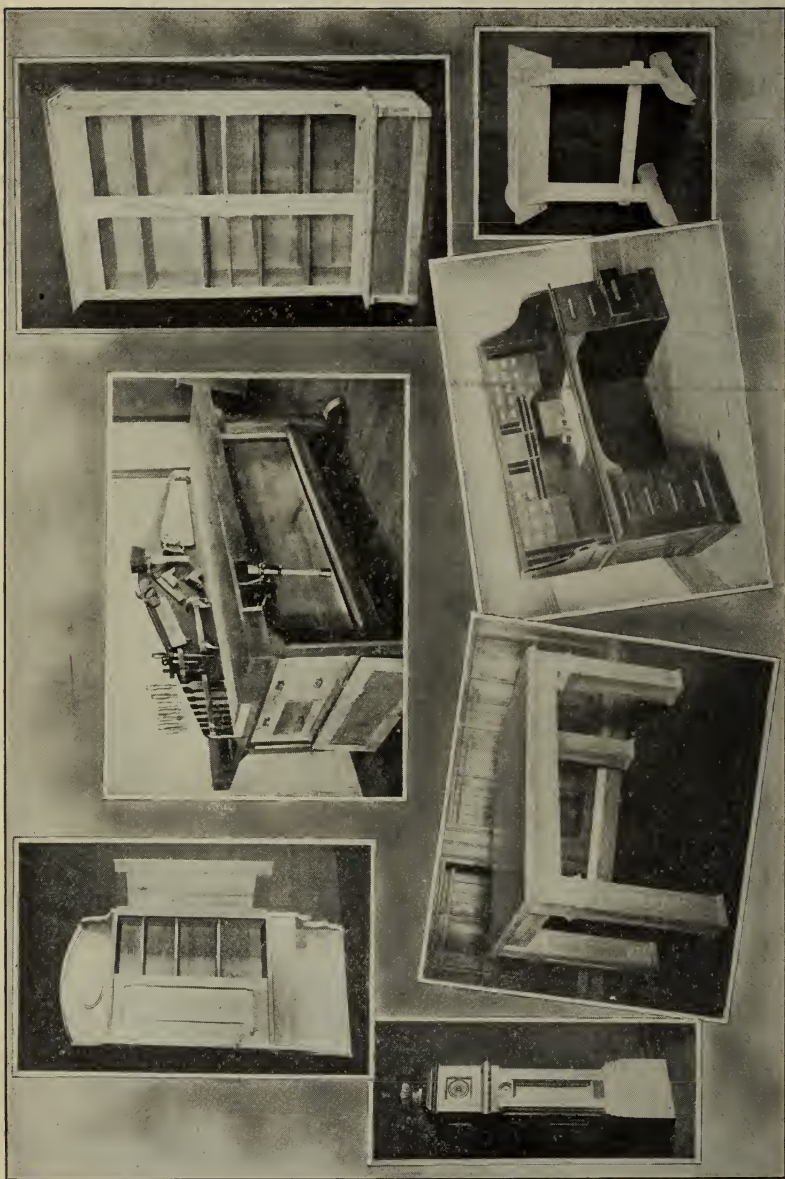


1. STUDENT AT JIG SAW. 2. STUDENTS AT TURNING LATHES. 3. STUDENT AT BAND SAW 4. STUDENT AT POWER MORTISER. 5. STUDENT AT BENCH.



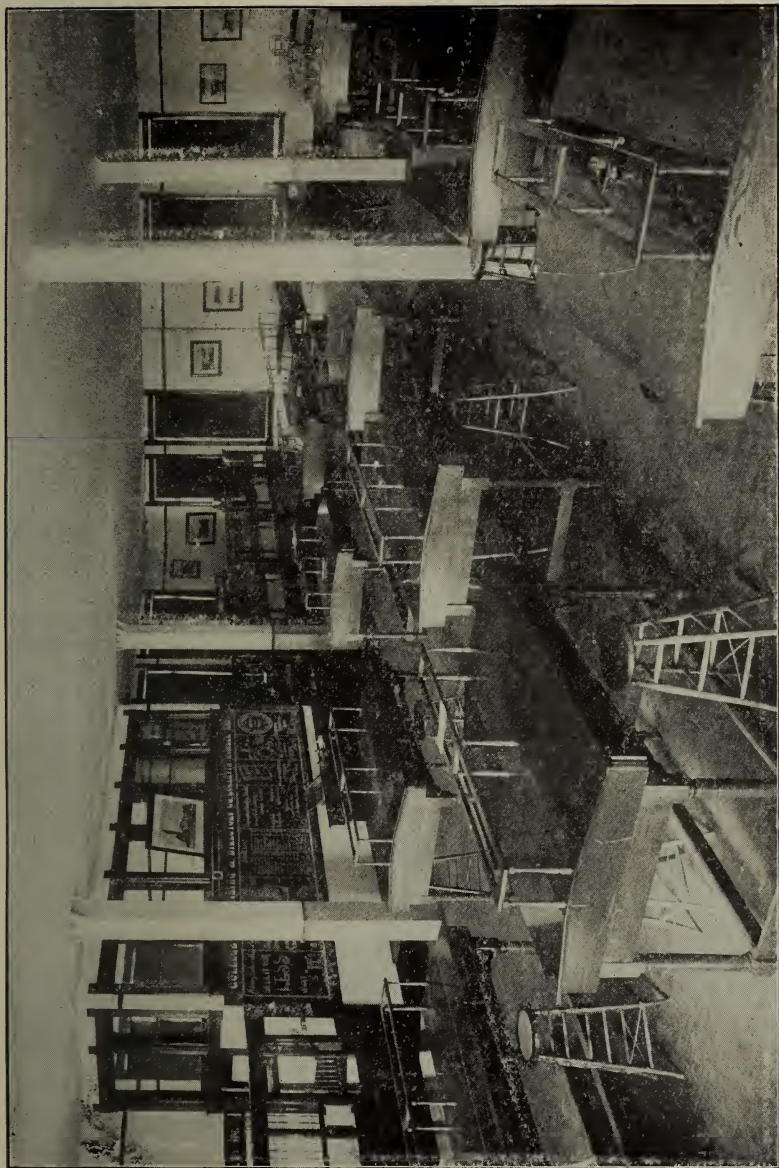
### CARPENTER SHOP.

Mind must guide the skillful hand; brain must dominate brawn; the head and the hand must work together, that labor may be worthy the educated laborer.



**SAMPLE EXERCISES BY STUDENTS IN MECHANIC ARTS. WOOD WORK.**  
If you have a liking for a trade, don't spoil your life by becoming a cheap doctor or lawyer.





### ACCOUNTING ROOM.

The Agricultural College is the only school in the West that offers a college course in Commerce.



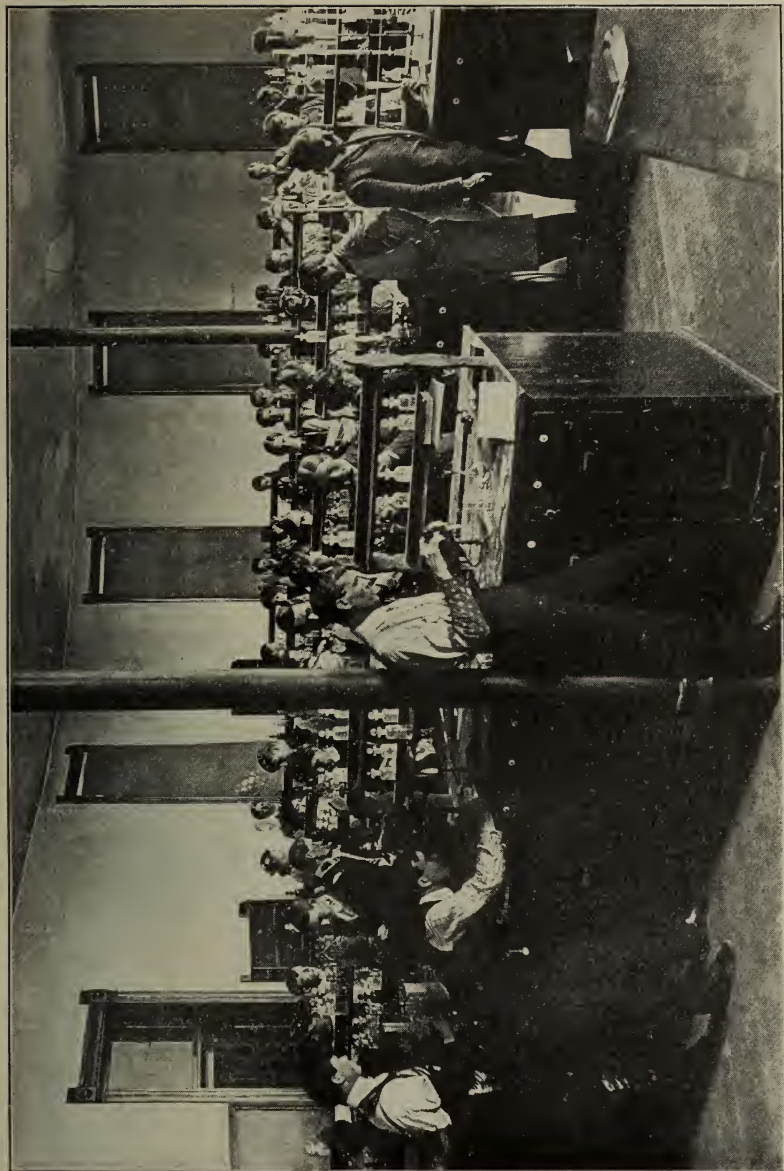
**CORNER IN TYPEWRITING ROOM.**



**OFFICE AND CORNER IN COMMERCIAL ROOM.**

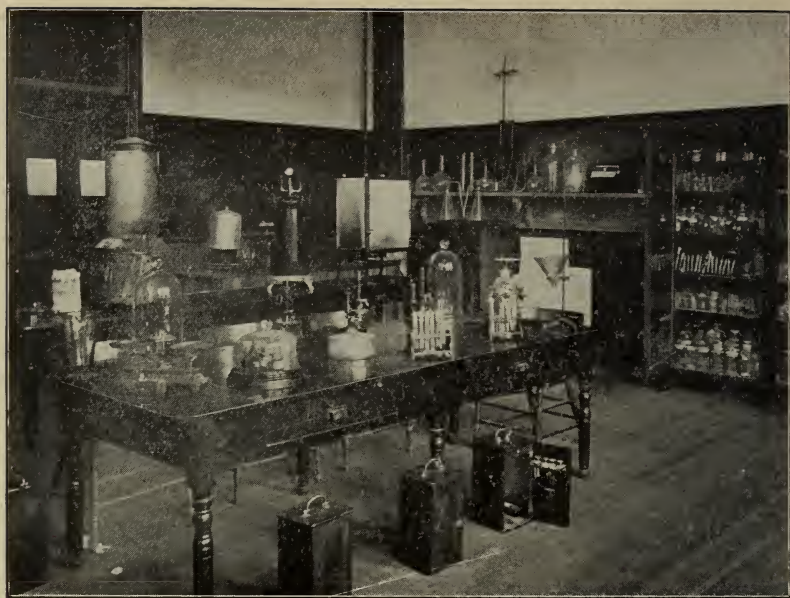
The College is not able to fill the demand made upon it for persons skilled in any branch of commercial work.





**VIEW IN CHEMICAL LABORATORIES.**

You cannot use your opportunities well without an Education.



**BACTERIOLOGICAL LABORATORY.**  
The way to get an education is *to get it*.



**ZOOLOGICAL LABORATORY.**  
God pity most the boy or girl who cannot converse with Nature, and secure her help  
in the affairs of life.





#### **CLASS ROOM. MINERALOGY.**

We know more than Latin, Greek, Hebrew and Mathematics today, and, therefore, the education of today includes more.



#### **ART ROOMS.**

The College teaches all the subjects belonging to a thorough education.



**STACK ROOM, COLLEGE LIBRARY.**

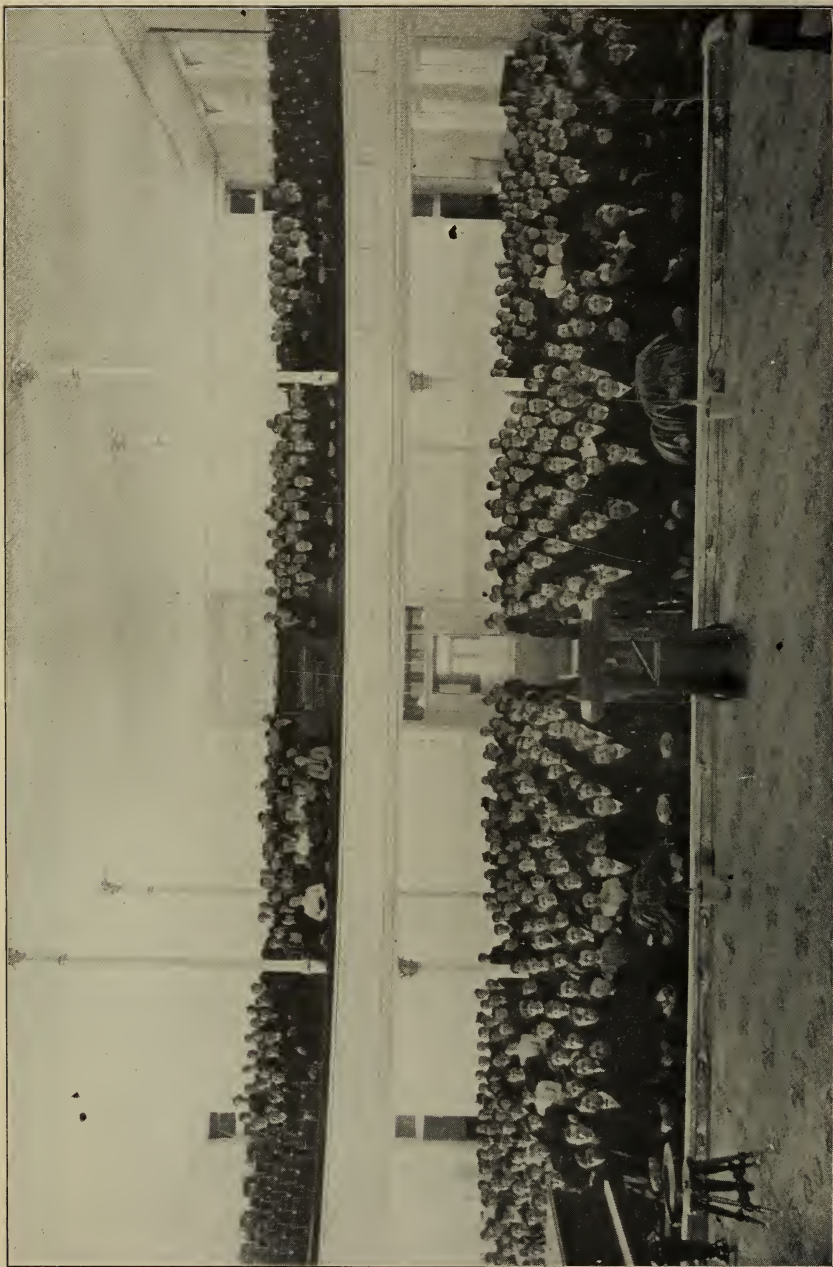
Since one head cannot hold all learning, the newest education declares that you should choose such subjects as lie nearest to your Future Work.



**READING ROOM, COLLEGE LIBRARY,**

All studies should be chosen with reference to their application to some useful end.





**COLLEGE AUDITORIUM.**

Enter the school: you will be satisfied.





**RIFLE TEAM.**



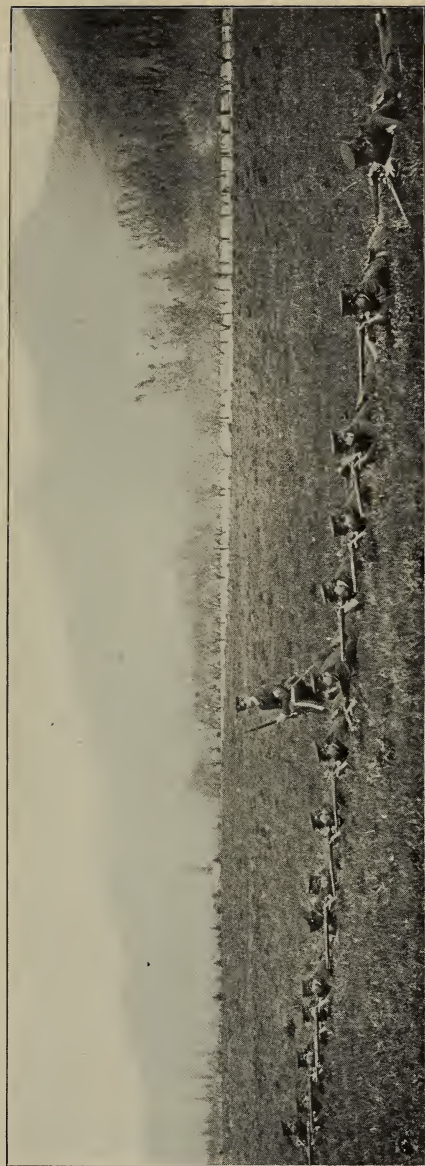
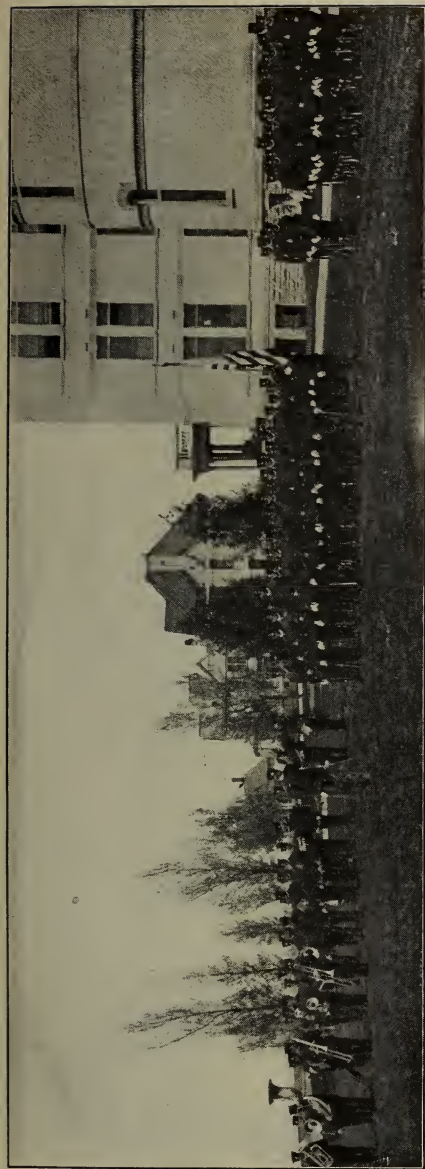
**CADET OFFICERS.**

The U. S. War Department furnishes an instructor in Military Science.



**COLLEGE MILITARY BAND.**  
The Department of Music is especially strong.





CADET BATTALION AND SKIRMISH FIRING.



# **PHYSICAL CULTURE.**

A Man With Only a Head Would Not be Quite Complete. The Body and the Moral Nature must receive *their* share of attention.





COLLEGE FOOTBALL TEAM.



COLLEGE BASKETBALL TEAM.



RESIDENCE OF DIRECTOR OF EXPERIMENT STATION.



RESIDENCE OF THE PRESIDENT.

# Agricultural College of Utah

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## General Information

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The Agricultural College of Utah constitutes part of the public school system of the State. It comprises five different schools,—the School of Agriculture, the School of Domestic Science and Arts, the School of Commerce, the School of Mechanic Arts, and the School of General Science; also the Agricultural Experiment Station, which, while not providing directly for instructional work, is one of the most important departments of the institution. The organization, purpose, and equipment of the College, together with the character and extent of the work offered, are described in the following pages.

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## HISTORY

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The Agricultural College of Utah was founded in 1888, when, on March 8th, the Legislative Assembly accepted the terms of the national law passed by Congress on July 2d, 1862. Under this Act of Congress, and the Enabling Act, providing for the admission of Utah as a state, 200,000 acres were granted to the State of Utah, from the sale of which lands there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives \$15,000 annually for the Experiment Station.

Under the Morrill Act of 1890, the State receives \$25,000 annually for instruction in the Agricultural College.

Under the Adams Act of 1906, the State will ultimately receive an additional \$15,000 for research work by the Experiment Station.

Under the Nelson Act of 1907, the Morrill Act was so amended that the State will receive an increase of \$5,000 annually, until the annual amount so received will be \$50,000 per year.

These various federal appropriations, together with the annual income from the land-grant fund, represent the income from the general government, but as most of these funds must be used in accordance with the law for certain specific purposes, the institution became dependent on State appropriations for funds with which to carry on the work of instruction, etc. These needs have been generously met in the past by the various Legislative Assemblies of the State. In 1888 the sum of \$25,000 was appropriated for buildings, and the county of Cache and the city of Logan gave one hundred acres of land on which to locate the College. In September, 1890, the institution was first opened for the admission of students, degree courses being offered in Agriculture, Domestic Arts, Civil Engineering, Mechanic Arts, and Commerce; also a Preparatory Course, and short courses in Agriculture and Engineering. Since that time the State has, on various occasions, appropriated sufficient funds to erect and maintain in order all the buildings described in a later section, besides providing largely for the institution.

Since that time, also, many improvements have been made in the courses; some have been abandoned, several short courses in Manual Training, Domestic Science, etc., have been added, the standard of the College work has been raised, and in 1903 the Board of Trustees established the School of Agriculture, the School of Domestic Science, the School of Mechanic Arts, the School of Commerce, and the School of General Science.



## GOVERNMENT

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The government of the College is vested primarily in the Board of Trustees, and, under their control, the three other administrative bodies,—the College Council, the College Faculty, and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of seven members, appointed by the Governor with the approval of the State Senate. This board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships and to employ the instructing force and other officers of the College.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for their approval. Another committee is concerned with the funds and accounts of the College, while a third has general charge of all building and repairs throughout the institution. In addition to these, there are committees, largely advisory, having to do with the employment and service of College officers, and with the work of particular departments.

THE COLLEGE COUNCIL consists of the President of the Board of Trustees, the President of the College, the Registrar, and the professors, the associate professors, and the assistant professors. All the important questions of discipline and policy are considered by this body.

The standing committees of the Council are, with two exceptions, representative of the several schools of instruction in the College. They have charge of the enrollment and progress of students in the respective schools, and have general direction of the work there carried on. The Committee on Scholarship and

Graduation investigates the records of all candidates for certificates and degrees, and makes recommendations to the Council. To another committee of the Council is delegated the duty of arranging and carrying on Farmers' Institutes throughout the State.

THE COLLEGE FACULTY includes the President, the professors, the associate professors, the assistant professors, the librarian, the instructors, and the assistants. As an administrative body it is concerned with the ordinary questions of methods and discipline and with various matters pertaining to the general welfare of the College. Through its standing committees it is in more intimate contact with the student body and with the life and interests of the college community.

The standing committees have delegated to them the immediate direction of various phases of college life. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and the students; the interests of the students on the athletic field, in the amusement halls, and in their various organizations—all these things are within the province of appropriate committees.

THE EXPERIMENT STATION STAFF consists of the President of the College, the Director of the Station, and the chiefs, with their assistants, of the departments of Agronomy, Horticulture, Animal Husbandry, Dairy Husbandry, Entomology, Chemistry, Irrigation Engineering, and Poultry Culture. This body is employed in the investigation of problems peculiar to agriculture in this portion of the country, the purpose being to improve conditions and results. It is further responsible for the circulation, through private correspondence and regular bulletins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for the public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the institution, and the community. Most important of these is an

active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies, and exemplary personal conduct are insisted upon at all times, and the administrative bodies of the College are fully empowered to secure these results.

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## POLICY

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It is the policy of the Agricultural College of Utah, in accordance with the spirit of the law under which it is organized, to provide a liberal, thorough, and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided, the practical being based upon, and united with, the thoroughly scientific. All the practical work, on the farm, in the orchards, vineyards, gardens, dairy, commercial rooms, kitchen, sewing rooms, different scientific laboratories, and carpentry, forge, and machine shops, is done in strict accordance with scientific principles. In addition to the practical work of the different courses, students are thoroughly trained in the related subjects of science, and in mathematics, history, English, and modern languages. While the importance of practical training is emphasized, the disciplinary value of education is kept constantly in view. It is recognized that the mind, the eye and the hand must be trained together to secure symmetrical development. The object is to inculcate habits of industry and thrift, of accuracy and reliability, and to foster all that makes for right living and good citizenship.



## LOCATION, BUILDINGS AND GROUNDS

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The Agricultural College is located in Logan, Utah, the county seat of Cache County, which is one of the most prosperous agricultural counties in the State. The city has a population of about 7,000; it is noted for its freedom from vice, is quiet, orderly, clean, and generally attractive, with neat homes, good, substantial public buildings, electric lights, and a water system. The citizens are thrifty and progressive. The College is beautifully situated on a broad hill overlooking the city, one mile east of Main street, and commands a view of the entire valley and of its surrounding mountain ranges. The beauty of the location is perhaps unsurpassed by that of any other college in the country. A few hundred yards to the south is the Logan River, with its clear water and luxuriant grasses and shrubs. A mile to the east is a magnificent mountain range and a picturesque canyon. In other directions, the towns and farms covering the green surface of Cache Valley, and seen through the clear atmosphere, constitute a delightful and impressive panorama. The valley is a fertile, slightly uneven plain, 4,500 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation, and completely surrounded by the Wasatch Mountains. It is one of the most beautiful and healthful valleys in the western region.

On this site the College now has nearly twenty buildings, all modern, all well lighted and well heated, and most carefully planned and constructed to meet the purpose for which each was intended.

The main building, of brick and stone, is 360 feet long, 200 feet deep in the central part, and four stories high. It contains the large auditorium, seating about 1,500; the administration offices; the library; the gymnasium; and all the various class rooms and laboratories except those of Mechanic Arts.

The Experiment Station Building, a two-story brick structure 45 feet long and 35 feet wide, contains the offices of the sta-

tion staff, the laboratory of the Horticulturist, and a dark room for photographic work.

The Mechanic Arts Building is a one-story brick structure, with the exception of the central part, which is two stories high. It has a ground floor area of 16,600 square feet, divided into four groups of rooms, viz.: wood working department, machine shop, foundry, and draughting rooms. In the second floor are the Mechanic Arts Museum, blue-printing room, room for painting, etc., and a class room.

The Dormitory, a four-story brick building 50 feet by 80 feet, contains 33 rooms for students, besides reception rooms, dining room, kitchen, matron's and employees' rooms, etc. The entire building is steam heated.

Two conservatories, each 90 by 25 feet, divided into various compartments for the purpose of regulating the temperature, are used to supplement class work in botany, floriculture and horticulture.

The veterinary hospital, a two-story stone and frame structure, 18 by 42 feet, contains a well-equipped dispensary, and operating room, stalls, etc.

THE BARNS. The horse barn, a wooden structure, 60 feet square, contains model sanitary stables for horses, storage divisions for hay, grain, and seed, and rooms for carriages and wagons, farm implements, and machinery; also the farm foreman's room, and repair shop. A ten-horsepower electric motor furnishes power for grain threshing, feed grinding, and fodder shredding. The cattle barn, 106 feet by 104 feet, is provided with the most modern equipment throughout, including iron stalls, cement floors and mangers, etc. There are accommodations for seventy-five head of cattle; also hospital rooms, feed rooms, a milk room, a root cellar, and storage room for hay and grain. The sheep barn, 94 feet by 41 feet, has accommodations for seventy-five sheep, and storage room for feed. The hog barn is a wooden structure, 65 feet by 31 feet. It contains two feed rooms, a cook

room, an abattoir, and twelve pens, each of which is provided with an outside run. This building accommodates sixty mature animals.

The Poultry Building covers 230 feet by 25 feet, with yards 100 feet wide on each side. The building is divided into two sections:—first, the brooder section, with a capacity for about one thousand chicks; second, the experimental section, with a capacity of over five hundred hens. The latter is divided into thirty-two pens; it is shut off from the public and used for conducting experiments on the different questions of poultry culture. The building is heated by a hot water system. In the front part are an office, a feed and weigh room, a store room and a sleeping apartment. The basement, 18 by 34 feet, is used only for incubators.

The land occupied by the College and its several departments embraces about 116 acres. Of this, thirty-five acres constitute the Campus, which is tastefully laid out and adorned with flower-beds and individual specimens and groups of ornamental shrubs and trees, both evergreen and deciduous. There are broad stretches of lawn, and wide drives and walks leading gracefully from various parts of the Campus to the College buildings. During the summer the conservatory contributes its hardy plants for lawn decoration.

Immediately east of the Main Building are the parade grounds and athletic field, of about ten acres. The farms comprise 71 acres; the orchards and the small fruit and vegetable gardens, 10 acres. All parts of the College grounds are used by the professors in charge of instruction in agriculture and horticulture for the purpose of practical illustration in their respective departments; they are also used for the work of the Experiment Station.



## EQUIPMENT

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THE DEPARTMENT OF AGRONOMY is provided with a large collection of agricultural plants and seeds, and other illustrative material. The agricultural laboratory is equipped with balances, a self-registering dynamometer, an appliance for measuring the resistance to tractive force of incline and obstruction, a double-tree hitch apparatus, horse calipers, and apparatus for determining the water-holding capacity of soils, specific gravity of soils, etc. There is also a model of a horse arranged for determining, by experiments, the influence on draft of direction of traces, weight of horse, strength of hock muscles, etc. An apparatus has been provided to demonstrate the influence of head diameter, length and bends, on the rate of discharge of water through lines of tile and water pipe. The College farm is equipped with the best farming implements and machinery, including plows, cultivators, planters, cutters, shellers, grinders, a binder, a threshing machine, an electric motor, etc. For illustrative and experimental purposes the farm is divided into numerous plats, on which different classes and varieties of farm crops are grown.

For the work in ANIMAL INDUSTRY, general use is made of the College barns, live-stock, dairy, etc. The live-stock consists of Hereford, Short Horn, Holstein, and Guernsey cattle; Shropshire, Cotswold and Rambouillet sheep; and Berkshire, Poland China, Tamworth, Yorkshire hogs. The dairy occupies a floor space of about three thousand square feet, which is divided into seven rooms for the various processes of dairy work. The department is equipped with the apparatus necessary for all the processes of butter and cheese-making and milk-testing. For butter-making there are milk vats and heaters, hand and power separators, hand and power churns, a combined churn and worker, and a Mason butter worker. For cheese-making there are Wisconsin curd tests, four vats, gang and upright presses, and a curing room. Ample facilities are provided for illustrating the handling

of milk for the milk trade, including the Star milk cooler, continuous and intermittent pasteurizers, etc. The milk-testing laboratory is as well equipped as any similar laboratory in the country. There are two steam and two hand Babcock testers, and nearly every type of Babcock testing apparatus. There is also apparatus for testing the acidity of milk or cream, and delicate balances, used in testing cheese and butter. The department has an eight-horsepower boiler and a six-horsepower engine, and model cold storage rooms for butter and cheese. The model poultry house and equipment affords special facilities for illustrative and practical experimental work with poultry.

THE BOTANICAL LABORATORY has a good supply of apparatus with which to do systematic and microscopic work. The herbarium contains 3,000 mounted and named specimens, to which the students have access at all times. There are 700 samples of seeds for use in economic botany. The general equipment includes a compound microscope for each student's use; 15 Bausch and Lomb dissecting microscopes; microtome; hand section cutters; stains; slides; and everything necessary for successful botanical work. The orchard with over 300 varieties of apples, pears, peaches, plums, apricots, and cherries; and the small fruit and vegetable gardens, all are used in connection with the work in botany and horticulture for practical illustrative purposes.

THE VETERINARY LABORATORY is supplied with surgical instruments, a modern operating table, an operating room, box stalls for patients, the necessary medicines, etc. Among the more important surgical instruments are a complete set of dental instruments, mouth speculum, tracheal and roaring instruments, neurotomy set, thermo-cautery, castrating and spaying instruments, obstetrical instruments, postmortem and diagnostic instruments, and other material found in a well-equipped hospital. In this laboratory the agricultural students have practice and observation in the treatment of animals.

THE DEPARTMENT OF DOMESTIC SCIENCE AND ARTS is located in the Main Building, occupying the first floor of the south

wing, besides several rooms in the basement. On the first floor are the office and reception room; a large lecture room; a laboratory and museum, provided with cabinets, charts, and about three hundred specimens showing the composition of food materials and the processes of their manufacture; a room for instruction in home nursing, with proper furnishings to give practice in making and changing beds for the sick and the general care of the sick room; four large sewing rooms, and a fitting room, furnished with the latest improved machines, small sewing tables, low chairs, cutting tables, tracing boards, electric irons, wardrobes and cupboards for holding unfinished work, large display cabinets for finished work, and cabinets containing samples showing the process of manufacturing wool, silk, cotton, and linen. In the basement are two large class kitchens, each containing twelve individual combined work-tables and cupboards, with gas stove on each. The equipment of these rooms includes two large two-oven coal ranges and a single coal range, an Aladdin oven, and an electric stove. There are ample pantries and store rooms, and all necessary utensils and modern conveniences for teaching cooking. The dining room is furnished with extension tables, chairs, sideboards, cupboards, fruit closet, and a generous supply of china, silver, and table linen. The laundry room is provided with stationary tubs, a Chicago clothes-drier, ironing tables, skirt boards, and other necessary furnishings.

THE COMMERCIAL DEPARTMENT is completely equipped for thorough and efficient work in modern business courses. The entire third floor of the front of the Main Building is occupied by the department, covering a floor area of 7,225 square feet. Each room is specially designed and furnished for the work to be conducted in it. The furniture of the department consists of hard wood counting room desks and counters, arranged in such a way that students may either sit or stand while at work. A complete set of modern banking fixtures, a wholesale house, a retail house, a commission house, a freight office, a real estate office, and an insurance office, with permanent blank books, letter files, rubber



stamps, copying presses, college currency, blanks, etc., are provided by the College. The room for typewriting contains a full complement of standard machines, each provided with stand and copy-holder. The room for stenography is furnished with tables designed for convenience in practice work. The penmanship room and general class rooms are furnished with single desks.

THE MECHANIC ARTS are taught with the assistance of a large and carefully selected equipment for practical work in shop, field and laboratory. The carpentry rooms are supplied with seventy benches, with full sets of tools. The wood-working machinery includes fifteen pattern-maker's lathes, universal saw table, jig and band saws, planer, mortiser and borer, shaper, and sander; and there are the usual clamps, vises, blue-tables, veneer-presses and other special tools required for a shop of this kind. For the work in forging there are provided twenty-three single and eight double forges, each with a complete equipment of anvil and tools. In addition, there are two furnaces, one belted power hammer, drills, special swages, cutting-off machines and leveling tables, with a considerable assortment of special tools. The equipment for foundry work includes iron-melting cupola, brass furnace, core oven, annealing furnaces, flasks, patterns, ladles, crucibles, and full sets of regular tools for flask and floor moulding. The outfit used in carriage building comprises, in addition to the required benches, a full supply of carriage-builders' tools, including hub-boring and boxing machines, spoke-tenoning machine, felloe-boring machine, tire-bender, etc. In the room devoted to machine work in iron are found six large engine lathes, three universal milling machines, a universal grinding machine, two speed lathes, a large radial drill press, a sensitive drill (built by students), two crank shapers, two large planers, grindstones, and emery wheels; every machine having its regular equipment of tools and attachments. The tool room is well supplied with drills, reamers, cutters of various kinds, files, calipers, etc. The store-rooms contain a full stock of materials to be used in the regular work of the various shops. All machinery, including blast and

exhaust systems for the forge shop and foundry, is electrically driven.

The Engineering Laboratory is equipped with modern apparatus for experimental work on the strength and elasticity of all kinds of engineering materials; on efficiency and lost work of machines; on power losses by electrical and mechanical transmission; on the heating value of various kinds of fuel; and on flow of air and gases. The apparatus used for this work is of the highest order, and the results obtained are therefore reliable and of permanent value as engineering data. A fifteen-horsepower gasoline engine for power and experimental purposes, a 200,000-pound Riehle standard testing machine, a standard cement testing machine, various electric machines, complete electric measuring apparatus, dynamometers, power scales, etc., may be mentioned as important parts of this equipment.

In Civil Engineering, in addition to the laboratory, the interest naturally centers at two points, the apparatus provided for field work, and the equipment of the draughting rooms. For the work in surveying there are four first-class transits, three levels, a Johnson plane table, a planimeter, a clinometer and other supplementary instruments, together with a full supply of chains, tapes, etc. For the work in hydraulics, the equipment includes a number of water meters of different kinds, a hook gauge, water registers, etc. The equipment on the experiment farm in the shape of measuring apparatus, and the many canals, rivers, and power plants in the immediate vicinity, afford excellent opportunity for thorough training in hydraulic work. The draughting rooms are supplied with draughting tables, special instruments, models, hand books, calculating tables, slide-rules, and such other accessories as are needed for office work.

A recent innovation is the establishment of a special Mechanic Arts Library, located in the Mechanic Arts Building. It contains the private library of the professor, with such other books from the general library as may be required for special study. Current engineering literature is placed at the disposal of

junior and senior students in Engineering and advanced students in Mechanic Arts. A very extensive list of manufacturers' catalogues has been collected and classified, and forms an important part of this library.

THE BACTERIOLOGICAL LABORATORY is well equipped with modern apparatus for the work offered. Each student is provided with a high-power Leitz or Bausch and Lomb microscope with nose-piece and substage. One microscope with triple nose-piece, fitted with 1-12 and 1-16 oil-immersion objectives, Abbe condenser, and rotary and mechanical stage, is used for identification work. Other equipment includes an autoclay, hot air and steam sterilizers, incubator, refrigerators, aerobic plate apparatus anaerobic tube apparatus, microtome, analytic balance, cages, permanent mounts, glassware, chemicals, stains and culture media.

THE ZOOLOGICAL LABORATORY is equipped with water and gas, high-power double nose-piece Bausch and Lomb microscopes, dissecting microscopes, condenser, camera lucida, rotary microtome, paraffine bath, freezing apparatus, microspectroscope, photomicrographic camera, haemacytometer, platinum wire, glassware, reagents, stains, etc. For the work in anatomy and physiology, in addition to the above, there are enlarged models of the eye, ear and brain; and a life-size papier-mache manikin; an articulated and a disarticulated human skeleton, and one or more skeletons from each group of the vertebrates. In the work in zoology the collection of mounted mammals and birds, alcoholic and dry specimens of reptiles, fish and the invertebrates, the Smithsonian material, and living forms from the aquaria are used. For the work in entomology the exhibition collection of insects, the systematic collection of the department, and the private collection and library of the professor are available.

THE CHEMICAL LABORATORIES occupy the second floor of the north wing of the Main Building, and include ten rooms. One large room is devoted to the work in general chemistry and qualitative analysis, and two smaller rooms to work in organic chemistry and quantitative analysis. A pleasant room, centrally lo-



cated with respect to laboratories, is used as the lecture room of the department. Adjoining the main laboratory and the lecture room are a large store room and a preparation room for the use of the instructor. On the east side of the wing, two large rooms and a store room are used for the work carried on by the Chemical Department of the Experiment Station. A room in the basement is used for the work in fire assaying.

The chemical laboratories are well equipped for elementary and advanced work in chemistry. In the College laboratories especial provision is made for the elementary study of the science. Individual desks, fitted with drawers and cupboards, and a very complete assortment of chemical glassware and chemicals, render the work in the laboratories easy and pleasant. There are also several valuable collections of gums, oils, coloring matters, foods, etc., that are important aids to the students in this department. The laboratories of the Experiment Station are excellently equipped for advanced work. The extensive collection of apparatus includes, among other things, balances; silver calorimeter; half-shade polariscope; several sets of hydrometers; thermometers; spectroscope; vacuum pan; filter press; apparatus for gas and microchemical analysis; a large supply of platinum ware; several models of elutriators; a very complete set of apparatus for food and fodder analysis; stirring apparatus; steam and hot air drying ovens; microscopes; apparatus for soil analysis; and a large supply of Jena glassware and chemically pure reagents. The laboratories are fitted with water, gas, hoods and all other conveniences.

THE PHYSICAL LABORATORY occupies a suite of rooms on the second floor. The equipment is fairly complete, consisting of all the necessary pieces of apparatus for class demonstration; a set of apparatus for elementary laboratory work, sufficient for sixteen students working on the same experiment; and all pieces required for an experimental course in heat and electricity. Some of the more important pieces are balances and weights by Sartorius; platform balances; an Atwood machine, with aluminum

friction wheels and electrical attachments; centrifugal apparatus; working models of levers and pulleys; air pumps; thermometers in different scales; barometers; hydrometers; hydraulic press; porte lumiere; telescope; microscope; an assortment of lenses, mirrors, and prisms; spectroscope; sonometer; siren; tuning forks; organ pipes; Chladni's plates; electric static machine; Leyden jars; electroscope; electrophorus; magnetometer; galvanometers of tangent, sine, balastic, astatic, and D'Arsonval types; Wheatstone bridges, both box and wire forms; resistance boxes; standard resistance and standard cell; primary and storage cells of various kinds; Ruhmkorff coils; electric generators and motors; Crooke's tubes and Geissler tubes; Toepler-Holtz machine; one complete wireless telegraphy apparatus.

THE COLLEGE MUSEUMS are supplied with a large number of specimens illustrative of geology and paleontology, vertebrate and invertebrate zoology, and mineralogy; also about four thousand five hundred species of the Rocky Mountain flora, and a large number of the woods of the United States. There is also an extensive collection of grains, representing the produce of Utah and other states. Contributions of fossils, ores, animals, relics, or other material of value to the museums will be highly appreciated. All gifts are labeled and preserved, and the name of the donor is kept on record.

THE ART ROOMS contain many valuable casts, most of which are reproductions of the works of the masters, together with many smaller casts suitable for the more simple work of drawing. A few reproductions of the paintings of the masters are in the equipment, and charts to be used in the work in design; also the tables, drawing boards and cases necessary for the work.

THE LIBRARY, with its offices and reading room, occupies the entire front of the second floor of the Main Building. The large, well-lighted reading room is furnished with tables, comfortable chairs, periodical filing cases, shelves for reference books, and the card cabinet. The books are shelved on the Library Bureau standard steel stacks, arranged in alcoves, where tables are pro-

vided for those wishing to do special study. The readers have free access to the shelves.

The library now contains about 16,830 bound volumes and a large number of pamphlets. There have been accessioned since July 1, 1906, 1,709 books; and 1,321 pamphlets have been filed. The books are classified by the Dewey decimal classification, and a dictionary card catalogue of the library is now completed. The shelf list is also on cards, and forms a classed catalogue for official use.

The Library is a designated depository for United States public documents, and receives substantially all documents printed by the government. There are ninety-two periodicals on the subscription list, besides about eighty which are received as exchanges for the publications of the College and of the Experiment Station. Thirty-five newspapers of the state are regularly received and placed on file in the reading room.

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## THE AGRICULTURAL EXPERIMENT STATION

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THE AGRICULTURAL EXPERIMENT STATION is a department of the College, supported by Congressional appropriations, supplemented by the receipts from the sales of farm products, and by such appropriations as the State Legislature makes from time to time to carry out special lines of work, or for the establishment and support of sub-stations. The station was created for the special purpose of discovering new truths that may be applied in agriculture, and of making new applications of well-established laws. It is, therefore, essentially a department devoted to research; and as such, it does the most advanced work of the College.

The Experiment Station is not, in the ordinary sense, an institution where model farming is carried on. It has a much



higher purpose. The practices of the farmer, good and bad alike, are subjected to scientific tests, in order to determine why the one is bad and the other good. Acting on the suggestions thus obtained, new lines of investigation are begun, with the hope that truths of great value to the farmer may be discovered.

The Station has for its present object the study of the underlying laws of irrigation. On the farm, in the orchards, gardens, and barns, experiments are going on that, in time, will lead to the establishment of an art of irrigation that will be based on laws developed by scientific methods. Special investigations for the purpose of encouraging the horticultural, dairy, and poultry industries, and of reclaiming the alkali and unirrigated lands of the state are also in progress.

By an act of the State Legislature of 1903, five experimental farms have been established in different parts of the state, for the purpose of demonstrating the possibilities of dry or arid farming on the soils of Utah. Another act, passed in 1905, established a central experimental farm, which has been located in Utah county. The work on all these sub-stations, including also the Experimental farm near St. George, in Washington county, is placed under the direction of the Experiment Station. In cooperation with the Department of Agriculture, this Station is carrying on extensive investigations in irrigation, drainage, in sugar beet seed production and in alkali land reclamation.

A report and four or five bulletins containing the results of the experiments of the stations are published annually for free distribution among the people of the state.

The Experiment Station has a high educational value. Nearly all the members of the Station Staff are also members of the College Faculty, and the students, therefore, receive directly, and at first hand, an account of the methods and results of the work of the Station. On the farm, in the gardens, orchards, barns and laboratories, the students receive training in the application of scientific truths to the practical affairs of men. The opportunities that the Experiment Station offers for advanced work in several

branches of science are of great importance. The methods of science have been carried into the operations of every human occupation; and the more fully scientific methods of accuracy, persistence, and adjustment are understood by a man, the greater as a rule will be his success in any walk of life. The scientific method and spirit characterize all the operations of the Station, and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station Staff are always glad to assist the advanced students of the institution in any investigation they may wish to undertake.

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## STUDENT ACTIVITIES

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Seven different societies are maintained by the students of the College—one doing general literary work, four following special lines, one a debating club, and one strictly social in its object. Of these, two are exclusively for women, three are for men, and two are open to both sexes.

THE SOROSIS, the oldest of the College societies, is open to women only, and its object is general literary and social culture. Weekly meetings are held, at which members usually occupy the time, with an occasional lecture from the outside.

THE AGRICULTURAL COLLEGE DEBATING CLUB is open to all students who are interested in college debating work. Its object is practical training in debate.

THE AGRICULTURAL CLUB is an organization of instructors and students interested in agricultural education. The object of this organization, which dates its existence in the College from November, 1901, is to promote social feeling among its members and to keep in touch with current events in agricultural science. One of the special features of the club work consists of lectures illustrated by stereopticon views. Meetings are held bi-weekly.

THE COMMERCIAL CLUB has for its purpose to promote the interests of the Commercial School, to popularize the commercial courses, and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men throughout the state on topics of special interest to the business man. All commercial students are eligible to membership.

THE AGRICULTURAL COLLEGE WOMEN'S LEAGUE is an organization of students, instructors, and other ladies connected with the institution. Its object is to promote useful and agreeable relations among the women of the College and to afford an organized social center for united thought and action.

THE MECHANIC ARTS CLUB. The students in Mechanic Arts maintain a club, the chief object of which is to encourage its members to keep in touch with current shop and building practice, and to afford a means of closer acquaintance and association during and after their collegiate life. The Club meets fortnightly to hear lectures and discussions by leading artisans.

THE ATHLETIC ASSOCIATION is organized for the promotion of the general physical culture of the students, and the encouragement of an active spirit in favor of manly sports. To this end not only does the College maintain representative teams in the different sports, but the various schools of the institutions compete with each other, thus offering men of all degrees of physical ability an incentive to the proper care and development of their bodies. The association has at its disposal a ten-acre plot of ground, where tennis courts, a base-ball diamond, and a foot-ball field have been laid out. A quarter-mile running path is built around the foot-ball field. Lockers and baths are provided for those in training. For indoor exercise the gymnasium on the third floor is available, with a complete equipment of wands, dumb-bells, Indian clubs, etc. Here an opportunity is given the men to take systematic drill in gymnastics under the direction of the instructor. A ten-lap board track has been built for work in track athletics during the winter. The drill hall may also be used

for large classes in gymnastics. The men are assisted in their work by an instructor, whose aim is to help them make the most of the exceptional opportunities athletics offer for mental and moral as well as physical development. Those competing on the College teams must first pass a satisfactory physical examination.

THE COLLEGE MAGAZINE. The students of the College maintain, as the official organ of the College community, a monthly magazine, "Student Life." The scope of the publication is best indicated by the names of its six departments, viz.: Literary, Editorial, Student Affairs, Department Notes, Locals, Alumni and Exchanges. The editorial staff and business managers are chosen from the student body.

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## STUDENTS' EXPENSES.

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Tuition is free. Utah students pay an annual entrance fee of \$5. Students from other States must pay \$25. The privileges of the library and museum are free. In the laboratories, workshops, cooking rooms, and in typewriting, students are charged an incidental fee of \$1 per credit hour.

The fee charged for a certificate of graduation is \$2.50; and for a diploma, \$5. Students are held responsible for any injury done by them to the College property.

Good board and rooms can be obtained in private houses for from \$3.50 to \$4 per week. By renting rooms and boarding themselves, students are able to reduce the cost of room and board to less than \$2.50 per week.

THE COLLEGE DORMITORY has accommodation for sixty. The second floor is used exclusively for women, and the third floor for men, there being no communicating passage between the two. The building is equipped throughout with steam heat and electric lights, and each floor has bathroom and toilet accommodations.



Room, board, fuel and light are furnished at actual cost which does not go above \$13 to \$15 per month. Students furnish their own bedding; also rug or carpet, if desired. Board is payable in advance every month. The Dormitory discipline corresponds as nearly as possible to that of home life. Boisterous and rude conduct is not allowed. Parents or guardians of students in the Dormitory may receive a monthly report.

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## ADMISSION AND GRADUATION

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CONDITIONS OF ADMISSION. Graduates of the district schools are admitted without examination to the College Preparatory Course, to the high school courses in Agriculture, Domestic Science, and Commerce, and to the Manual Training Courses in Domestic Arts and Mechanic Arts.

Candidates for admission must be at least fifteen years of age. In all cases, good moral character is a requisite for admission.

Persons eighteen years old or over, not graduated from the district schools, will be admitted to the technical work of the Manual Training courses in Domestic Arts and Mechanic Arts, prior to June, 1908, after which time students who cannot show either by certificate or examination that they have completed the work of the eighth grade of the district schools will not be admitted to these courses. Until June, 1908, classes in the elementary branches will be maintained in order that the students referred to above may make up the regular entrance requirements.

Students who have completed the College Preparatory Course are admitted without examination to the four-year college courses in Agriculture, Domestic Science, Commerce and General Science.

Students who have completed the first two years of the three-year courses in Agriculture, Domestic Science, or Com-

merce, are admitted without examination to the regular four-year College courses.

Those who have completed any of the three-year courses are admitted without examination to the sophomore year in the corresponding courses leading to degrees. Students may transfer from one regular course to another by making up all the technical work not completed of the course to which they transfer. Students will be allowed to substitute technical work of one course for that of another only by permission of the Faculty.

Other students are admitted to any of the courses leading to degrees, upon the certificates of accredited high schools, or upon satisfactory examination in the required subjects. For a description of these subjects, see the high school courses outlined further on. By permission of the Faculty, students may be allowed, upon entrance, to substitute work for some of the required subjects. Certificates from schools not accredited will be considered as the merits of each case may warrant.

Candidates for admission to advanced standing are required to pass satisfactory examinations in all the work of the preceding years, or to present satisfactory evidence of having completed an equivalent of such work in some other school or college.

**SPECIAL STUDENTS.** Persons of mature years, who for satisfactory reasons desire to pursue a special line of study, may be admitted as special students, provided they give evidence of ability to do the work desired. Special students may be allowed to graduate in any of the courses, on condition that they complete the required work and pass the necessary examinations.

**REGISTRATION.** All students register at the beginning of the collegiate year for the work of the whole year. Changes in registration, and credit for work not registered, will be allowed only by special permission of the Council.

**CLASSIFICATION.** All regular students are classified as first, second, and third year students in Agriculture, Domestic Science, or Commerce; or as first and second year students in the College Preparatory Course; or as first, second, third, and fourth year

students in the Manual Training Courses in Mechanic Arts or Domestic Arts; or as freshman, sophomore, junior, and senior students in any of the four-year courses leading to degrees; according to the lowest year in which they have subjects, provided such subjects are equivalent to one-third of all the work taken; otherwise in the next year above.

GRADUATION. Students who complete the three-year courses in Agriculture, Domestic Science, or Commerce, or the four-year course in Manual Training in Mechanic Arts, or the three-year course in Manual Training in Domestic Arts receive certificates of graduation. The degrees of Bachelor of Science, Bachelor of Science in Agriculture, Bachelor of Science in Domestic Science, and Bachelor of Science in Commerce, are conferred upon those who complete the regular four-year courses in General Science, Agriculture, Domestic Science, and Commerce, respectively.

To obtain a degree the student must have been in attendance at least one school year preceding the time when the degree may be conferred. He must have completed all the prescribed work in one of the four-year college schedules. He must have acquired credits for electives according to the grade and number indicated in his schedule. He may be required to pass a satisfactory oral examination on the technical work of his course before a special committee appointed by the president. He must have no grade lower than D in any subject. Four-fifths of all his term grades must be C or better. He must have discharged all College fees.

He must be recommended for graduation by his school faculty and receive the favorable vote of the president and two-thirds of the members of the College Council.

## Schools and Courses of Study

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For the purpose of more efficient administration, the College is divided into five schools: (1) The School of Agriculture; (2) The School of Domestic Science and Arts; (3) The School of Commerce; (4) The School of Mechanic Arts, and (5) The School of General Science. These schools are not educationally separate, but are interdependent and together form a unit.

*The School of Agriculture* offers (1) A three-year high school course in Agriculture; (2) Four-year college courses in Agronomy, Horticulture and Entomology, Animal Husbandry and Dairying, Irrigation and Drainage, and Veterinary Science. In addition a course in Irrigation Engineering is offered jointly by the Agricultural College and the State School of Mines. The aim of this course is to prepare young men for one of the most important branches of engineering work in the West.

*The School of Domestic Science and Arts* offers (1) A three-year Manual Training Course in Domestic Science; (2) A three-year high school course in Domestic Science, and (3) A four-year college course in Domestic Science.

*The School of Commerce* offers (1) A three-year high school course in Commerce, and (2) A four-year college course in Commerce.

*The School of Mechanic Arts* offers a four-year course in Manual Training in Mechanic Arts, which may lead to carpentry, forging, machine work, or other trades.

*The School of General Science* offers (1) A two-year high school course, and (2) A four-year college course in General Science.

In addition, all the schools offer regularly a series of winter courses, which open on Jan. 7th, 1908.



## THE SCHOOL OF AGRICULTURE

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The instruction in Agriculture is divided into the following departments: The Department of Agronomy, the Department of Irrigation and Drainage, the Department of Animal Industry and Dairying, the Department of Horticulture, the Department of Entomology, and the Department of Veterinary Science. The courses of these departments are arranged especially with the view of enabling the student to lay a foundation upon which he can build a successful career as a farmer, or develop into a specialist in Agronomy, Animal Industry and Dairying, Horticulture, Irrigation, or Veterinary Science. For the student who expects to return to the farm, a high school course, continuing through three years, has been arranged; and a college course, leading to a degree is offered for those who desire to secure positions as farm managers, experts in the State or Government employ, or as workers in agricultural faculties and in experiment stations. The three-year course confines itself to laying a foundation that will secure success on the farm; while the longer course enables the student to direct his efforts along the special lines with which he is most concerned.

In the junior and senior years, the student is required to specialize in Agronomy, in Irrigation and Drainage, in Animal Industry and Dairying, in Horticulture and Entomology, or in Veterinary Science.

Experience has shown that practically all of the students who take this course come from the farm, and it is assumed that they are acquainted with the various manual operations of farm work. The design of the course is, therefore, to teach the sciences that underlie practical agriculture, and sufficient supplementary studies to develop the agricultural students to the intellectual level of the educated in other professions.

The general and department libraries enable the student to become acquainted with a wide range of agricultural and related

literature, while the laboratories of the College and the Experiment Station afford opportunity for training and experience that it would be impossible to get from books. The outline of the course and the description of the studies prescribed will give a fuller understanding of the work offered.

A winter course in Agriculture is provided, designed to meet the needs of young men of mature years who desire to follow some agricultural pursuit, and who can devote only the winter season to such preparation. The subjects presented embody the underlying principles and the best practice of agriculture. The class room instruction is supplemented by practice in the live-stock judging room, veterinary hospital, College dairy, agricultural and horticultural laboratories and greenhouses, and by visits of inspection to herds, farms and other places of interest.

Agriculture is one of the most promising of modern professions. It is growing very rapidly. Owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. The freedom, health, intellectual activity and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and the other Western States are offering splendid opportunities to those who prepare themselves for scientific farming. There is a large demand for men who can supervise large farm enterprises; there is a larger demand for men who can act as experts, experimenters or teachers in the schools and other institutions of the State and National Government. The supply of such men does not begin to equal the demand. Every graduate of the School of Agriculture of the Agricultural College is splendidly placed; a large number of the graduates of the other schools have later entered the work in agriculture.

For further information about the courses of this school, see the following schedules, and also under Department of Instruction.

## COLLEGE COURSES IN AGRICULTURE

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Every college course leads to the degree of B. S.

The first two years of all the college courses in Agriculture are alike. In the Junior Year the student must choose the subject in which he desires to specialize.

### Freshman Year.

<i>First Term.</i>		<i>Second Term.</i>	
Mathematics 4 .....	5	.....	5
Chemistry 1 .....	5	.....	5
Zoology 2 .....	3	.....	3
English 6 .....	3	.....	3
Animal Husbandry 1 .....	3	Vet. Science 1 .....	3
	19		19

### Sophomore Year.

Physics 1 .....	4	.....	4
Chemistry 3 .....	3	.....	3
Botany 3 .....	3	Botany 4 .....	3
Agronomy 2 .....	3	Chemistry 5 .....	3
Agricultural Technology 1 .....	3	Agr. Technology 2 .....	3
German or French 1 .....	3	.....	3
	19		19

## AGRONOMY

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### Junior Year.

English 7 .....	3	.....	3
German or French 2 .....	3	.....	3
Irrigation 2 .....	3	.....	3
Bacteriology 1 .....	3	Irrigation 3 .....	3
Chemistry 6 .....	3	.....	3
Horticulture 1 .....	5	Horticulture 2 .....	5
	20		20

Senior Year.

<i>First Term.</i>		<i>Second Term.</i>	
Geology 2 .....	3	.....	3
Agricultural Economics .....	3	.....	3
Horticulture 3 .....	5	Botany 5 .....	3
Agronomy 3 .....	3	Agronomy 7 .....	5
Agronomy 4 .....	3	Agr. Technology 3 .....	3
Economic Entomology .....	1	.....	1
Agricultural Technology 4 .....	3	Elective .....	3
	<hr/>		<hr/>
	21		21

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ANIMAL HUSBANDRY AND DAIRYING

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Junior Year.

English 7 .....	3	.....	3
German or French 2 .....	3	.....	3
Animal Husbandry 3 .....	3	.....	3
Bacteriology 1 .....	3	Agr. Technology 3 .....	3
Dairying 2 .....	3	Dairying 3 .....	3
Zoology 6 .....	3	Animal Husbandry 2 .....	3
	<hr/>		<hr/>
	18		18

Senior Year.

Agricultural Economics .....	3	.....	3
Animal Husbandry 4 .....	3	Dairying 4 .....	3
Horticulture 1a .....	3	Animal Husbandry 7 .....	3
Zoology 6 .....	3	Vet. Science 2 .....	3
Geology 2 .....	3	.....	3
Elective .....	5	.....	5
	<hr/>		<hr/>
	20		20



## HORTICULTURE AND ENTOMOLOGY

### Junior Year.

<i>First Term.</i>		<i>Second Term.</i>	
English 7 .....	3	.....	3
German or French 2 .....	3	.....	3
Irrigation 2 .....	3	.....	3
Entomology 2 .....	4	.....	4
Horticulture 1 .....	5	Horticulture 2 .....	5
	<u>18</u>		<u>18</u>

### Senior Year.

Agricultural Economics .....	3	.....	3
Horticulture 3 .....	5	Horticulture 4 .....	5
Botany 5 .....	3	Animal Husbandry 7.....	3
Bacteriology .....	3	Agr. Technology 3 .....	3
Geology 2 .....	3	.....	3
Dairying 2 .....	3	Irrigation 3 .....	3
	<u>20</u>		<u>20</u>

## IRRIGATION AND DRAINAGE

### Junior Year.

English 7 .....	3	.....	3
German or French 2 .....	3	.....	3
Mathematics 5 .....	5	.....	5
Irrigation 2 .....	3	.....	3
Irrigation 5 .....	3	Irrigation 3 .....	3
Elective .....	3	Elective .....	3
	<u>20</u>		<u>20</u>

Senior Year.

<i>First Term.</i>		<i>Second Term.</i>	
Agricultural Technology 4.....	3	Agr. Technology 3 .....	3
Agricultural Technology 5.....	5	.....	5
Irrigation 6 .....	3	Irrigation 7 .....	3
Geology 2 .....	3	.....	3
Horticulture 1a .....	3	Elective .....	3
Agricultural Economics .....	3	.....	3
<hr/>		<hr/>	
20		20	

Graduates from this course will be admitted without examination to the Junior Year of the Irrigation Engineering Course offered jointly by the University of Utah and the Agricultural College. The last two years, in which the technical irrigation work will be done, will be spent at the University of Utah, and are as follows:\*

Junior Year.

Drawing 3 .....	2	.....	2
Electrical Engineering 4a.....	3	.....	3
Engineering 3 .....	4	.....	4
Engineering 4a, 4b .....	1	.....	1
Engineering 5 .....	4	Engineering 9a .....	2
Surveying 1a, 1b, 4 .....	3	.....	5
<hr/>		<hr/>	
17		17	

Summer.

Surveying 2 .....	Six Weeks
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Senior Year.

Engineering 9 b .....	2	Engineering 14b .....	3
Engineering 2a .....	3a	Engineering 10 .....	3
Engineering 6 .....	4	Engineering 11, 12 .....	2
Engineering 7 .....	3	Engineering 13 .....	3
Engineering 14a .....	2	Engineering 14c .....	2
Mining 1 .....	3	Engineering 18 .....	2
Thesis .....		.....	2
<hr/>		<hr/>	
17		17	

\*For a description of courses see University catalogue for 1907-08.

## COURSE IN VETERINARY SCIENCE

### PREPARATORY COURSE.

<i>First Term.</i>		<i>Second Term.</i>	
English 3 and 4 .....	5	.....	5
Mathematics 2 .....	5	.....	5
History 1 .....	3	.....	3
Zoology 1 .....	2	.....	2
Drawing 1 .....	2	.....	2
Carpentry 1 .....	2	Blacksmithing 1 .....	2
	19		19

### Freshman Year.

Veterinary Science 2 .....	3	.....	3
Veterinary Science 4 .....	3	.....	3
Veterinary Science 5 .....	2	.....	2
Botany .....	3	Poisonous Plants and Fungi	3
Chemistry 1 .....	5	.....	5
Animal Husbandry .....	3	Entomology .....	3
Dissection .....	1	.....	1
	20		20

### Sophomore Year.

Veterinary Science 3 .....	3	.....	3
Pharmacy .....	2	.....	2
Veterinary Science 6 .....	2	.....	2
Veterinary Science 7 .....	3	.....	3
Bacteriology 1 .....	3	.....	3
Chemistry 2 .....	4	Chemistry 7 .....	4
Zoology .....	3	Animal Parasites .....	3
	20		20

# HIGH SCHOOL COURSE IN AGRICULTURE

## First Year.

<i>First Term.</i>		<i>Second Term</i>	
English 3 and 4.....	5	.....	5
Mathematics 2 .....	5	.....	5
Elementary Agriculture .....	5	.....	5
Drawing 1 .....	2	.....	2
Drill .....	1	.....	1
Carpentry 1 .....	2	Blacksmithing 1.....	2
	<hr/>		<hr/>
	20		20

## Second Year.

English 5 .....	5	.....	5
Mathematics 3 .....	5	.....	5
History 3 .....	3	.....	3
Drill .....	1	.....	1
Zoology 1 .....	2	.....	2
Botany 1 .....	2	.....	2
Dairying 1 .....	2	Entomology 1.....	2
	<hr/>		<hr/>
	20		20

## Third Year.

English 6 .....	3	.....	3
Chemistry 1 .....	5	.....	5
Zoology 2 .....	3	.....	3
Agronomy 1 .....	5	Irrigation 1.....	5
Animal Husbandry 1 .....	3	Vet. Science 1.....	3
	<hr/>		<hr/>
	19		19

# ONE YEAR COURSE IN DAIRYING

Mathematics 1 .....	5	Mathematics 1 .....	5
Penmanship .....	2	Dairy Bookkeeping .....	3
Factory Buttermaking .....	3	Dairy Bacteriology .....	1
Testing Milk and its Products .....	2	Factory Cheesemaking .....	1
Dairy Practice .....	7	Dairy Farm Management.....	1
		Dairy Practice .....	8
	<hr/>		<hr/>
	19		19



## THE SCHOOL OF DOMESTIC SCIENCE AND ARTS

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The courses in Domestic Science and Arts have for their object to train and broaden the minds of women, and to enable them to meet more intelligently the home demands of modern life. When woman has learned to apply the principles of science to the problems of daily living, she will realize that housekeeping is an occupation worthy of the best efforts of the brightest minds; and that the broadest courses in science, economics, and ethics can be applied to the betterment of home life. Formerly the higher education of woman led her away from the practical interests of the home. The recent establishment of Domestic Science courses in many leading colleges and universities shows a public demand for education toward home life rather than away from it. The State of Utah wisely established such courses when this College was first organized; and the favor with which the work has been received by the public shows the wisdom of the plans. The Domestic Science Course has been strengthened and improved each year, and better facilities for instruction and study have been generously provided. The four-year course gives the same training in mathematics, in English, and in science as is given in other baccalaureate courses, together with a broader culture in literature and modern languages than is offered in any other. Both in the preliminary work and in the advanced years, special studies in the various lines of home science are prescribed in logical order and stand as the distinctive features of the course. The three-year course is arranged as preparatory to the advanced years of the degree course, and also graduates with certificates those who are unable to complete the longer course. The Manual Training Course in Domestic Arts is offered for the benefit of young women who do not wish to take the studies of the regular college years, but desire to devote more time to the subjects of especial interest to women. Such other studies as the student is qualified to pursue may be substituted for those offered in this course. For further information about the work see schedules and Departments of Instruction.

# COLLEGE COURSE IN DOMESTIC SCIENCE

This course leads to the degree of B. S. in Domestic Science.

## Freshman Year.

	1st Term	2nd Term
Domestic Science 8 .....	7	7
English 6 .....	3	3
Mathematics 4 .....	5	5
Chemistry 1 .....	5	5
	<u>20</u>	<u>20</u>

## Sophomore Year.

Domestic Science 9 .....	5	5
English 7 .....	3	3
German or French .....	3	3
Physics 1 .....	4	4
Zoology 2 .....	3	3
	<u>18</u>	<u>18</u>

## Junior Year.

Domestic Science 10 and 11.....	5	5
German or French.....	3	3
Bacteriology 1 .....	3	0
Floriculture and Horticulture .....	0	3
Chemistry 2 .....	4	4
Elective .....	5	5
	<u>20</u>	<u>20</u>

## Senior Year.

Domestic Science 12 and 13 .....	5	0
Domestic Science 14 .....	0	5
Geology 2 .....	3	3
Economics 2 .....	3	3
Elective .....	7	7
	<u>18</u>	<u>18</u>

## HIGH SCHOOL COURSE IN DOMESTIC SCIENCE

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Those who finish this course receive certificates of graduation.

### First Year.

	1st Term	2nd Term
English 3 and 4 .....	5	5
Mathematics 2 .....	5	5
History 1 .....	3	3
Sewing 8 and 9 .....	3	3
Drawing 1 .....	2	2
Physical Culture .....	1	1
Library work .....	1	1
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	20	20

### Second Year.

English 5 .....	5	5
Mathematics 3 .....	5	5
Zoology 1 .....	4	0
Botany 2 .....	0	4
History 2 .....	3	3
Domestic Science I, Sewing 10 and 11.....	2	2
Physical Culture .....	1	1
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	20	20

### Third Year.

English 6 .....	3	3
Mathematics 4 .....	5	5
Chemistry 1 .....	5	5
Domestic Science 8 .....	7	7
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	20	20

## MANUAL TRAINING COURSE IN DOMESTIC ARTS

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Those who finish this course receive certificates of graduation. The numbers refer to credit hours per week.

### First Year.

	1st Term	2nd Term
English 3 and 4 .....	5	5
Mathematics 2 .....	5	5
Domestic Science 1 and 2 .....	5	5
Sewing 1 and 2 .....	3	3
Physical Culture .....	1	1
	—	—
	19	19

### Second Year.

English 5 .....	5	5
Zoology 1 .....	2	2
Drawing 1 .....	2	2
Domestic Science 3 and 4 .....	5	0
Domestic Science 5 and 6 .....	0	5
Sewing 3 and 4 .....	3	3
Physical Culture .....	1	1
	—	—
	18	18

### Third Year.

History 2 .....	3	3
English 6 .....	3	3
Domestic Science 7 .....	5	5
Sewing 5 and 6 .....	3	3
Drawing 3 or Sewing 7 .....	3	0
Botany 1 .....	0	3
	—	—
	17	17



## The School of Commerce

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The purpose of the School of Commerce is to give opportunity for a liberal education with special emphasis upon the commercial phases of life. Persons who complete the Commercial courses should be better prepared to assume leadership and responsibility in business and in the various industries and professions. Two courses are offered: one of three years, leading to a certificate of graduation; the other of four years, leading to the degree of Bachelor of Science in Commerce. Students in the three-year course may emphasize the work in Accounting, receiving a certificate in Accounting, or they may emphasize the work in Stenography and receive a certificate in stenography. Those who have finished the three-year course in Accounting are admitted to the sophomore year as candidates for degrees. The sophomore year is a continuation of the required work, but the work of the junior and senior years is, to a great extent, elective. During the sophomore year each student is expected to arrange his general plan of work for the junior and senior years. He may select as his major some phase of (1) Political Economy, (2) Political Science, or (3) Accounting and Administration. His plan must be approved by the teacher in charge of the work selected and by the director of the School of Commerce, before May 1st of the sophomore year. When the student's plan has been approved, his work is continued under the supervision of the professor in charge of the work selected.

For those who expect to enter the profession of law, the Commercial courses afford excellent preparation. Students who complete these courses will be prepared for position as teachers in commercial schools and in department schools where courses in commerce are given. The demand for thoroughly qualified teachers along this line of work is greater than the supply, and

many desirable positions are open to those prepared to do the required work.

The Profession of Public Accounting was formally recognized by the State Legislature of 1907. Chapter 86, Session Laws of 1907, creates a State Board of Accountancy, with office in Salt Lake City, whose duties are, in part: "To hold written examinations of applicants for certificates at least annually, at such places as circumstances and applications may warrant. To grant certificates of qualifications to such applicants as may, upon examination, be found qualified in theory of accounts; practical accounting; auditing; and commercial law; as affecting accounting, to practice as certified public accountants." This profession has long been recognized in Europe and is steadily growing in importance in this country. The Commercial Course affords excellent preparation for these examinations.

## COLLEGE COURSE IN COMMERCE

		1st Term	2nd Term
Freshman Year.			
Mathematics 4 .....	5	5	
English 6 .....	3	3	
Political Science 2 .....	3	3	
Political Economy 1 .....	3	3	
Accounting and Administration 3 or Steno- graphy 2 .....	5	5	
	19	19	
Sophomore Year.			
Chemistry 1 .....	5	5	
Physics 1 .....	3	3	
Spanish 1 .....	5	5	
Production and Manufacture 1 .....	3	3	
Zoology 2 .....	3	0	
Botany 1 .....	0	3	
	19	19	
Junior Year.			
English 7 .....	3	3	
French 1 or German 1 .....	3	3	
Banking and Finance 1 .....	3	3	
History 5 .....	3	3	
Economics 4 .....	3	3	
Electives in Commerce .....	4	4	
	19	19	
Senior Year.			
Geology 2 .....	3	3	
Trade and Transportation 1 .....	3	0	
Political Science 4 .....	0	3	
French 2 or German 2 .....	3	3	
General Electives .....	5	5	
Electives in Commerce .....	5	5	
	19	19	

# HIGH SCHOOL COURSE IN COMMERCE

## First Year.

	1st Term	2nd Term
English 3 and 4 .....	5	5
Mathematics 2 .....	5	5
History 1 .....	3	3
Accounting and Administration 1 .....	2	2
Commercial Arithmetic .....	2	2
Penmanship or Typewriting 1 .....	1	1
Drill .....	1	1
	—	—
	19	19

## Second Year.

English 5 .....	5	5
Mathematics 3 .....	5	5
Pol. Science 1 or Typewriting 2 .....	3	3
Zoology 1 .....	2	2
Accounting 2 or Stenography 1 .....	4	4
Drill .....	1	1
	—	—
	20	20

## Third Year.

Mathematics 4 .....	5	5
English 6 .....	3	3
Political Science 2 .....	3	3
Political Economy 1 .....	3	3
Accounting and Administration 3, or Steno- graphy 2 .....	5	5
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	19	19



## SCHOOL OF MECHANIC ARTS

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The course in Mechanical Arts is intended to qualify students as artisans, and the practical work of the shops and draughting room is emphasized. The course admits of a three-fold specialization—in woodcraft, forging, and machine work in metals, with special courses in foundry practice, carriage building, cabinet making, sloyd, etc. In this work are developed correct methods of using tools and doing the mechanic's work neatly, efficiently and with rigid accuracy. Sufficient work is given in English, mathematics, and elementary science to represent a fair high school education. Students electing any branch of the Mechanic Arts Course are required to do at least two years' work in that branch. No machine work is given until the student has shown a reasonable efficiency with hand tools. All products of the shop are the property of the department, students being permitted to take away specimens of their work only by special permission.

The trades have also changed greatly in recent years. Science has given them a secure foundation. The wages of artisans have also advanced so rapidly as to make the trades desirable as means of livelihood. The lack of skilled artisans should encourage many boys to go into this kind of life work. The work offered by this school is an unusually good preparation for engineering.

## MANUAL TRAINING COURSE IN MECHANIC ARTS

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Those who complete this course receive certificates of graduation.

<i>First Year.</i>	<i>First Term.</i>	<i>Second Term.</i>
English 3 and 4 .....	5 .....	5 .....
Mathematics 2 .....	5 .....	5 .....
Drawing 2 .....	3 .....	3 .....
Shop Work .....	5 .....	5 .....
Military Drill .....	1 .....	1 .....
	19	19

<i>Second Year.</i>	<i>First Term.</i>	<i>Second Term.</i>
English 5 .....	5 .....	5 .....
Mathematics 3 .....	5 .....	5 .....
History 3 .....	3 .....	3 .....
Shop Work .....	5 .....	5 .....
Drill .....	1 .....	1 .....
	19	19

<i>Third Year.</i>	<i>First Term.</i>	<i>Second Term.</i>
English 6 .....	3 .....	3 .....
Mathematics 4 .....	5 .....	5 .....
Mechanical Drawing a .....	3 .....	3 .....
Zoology 1 .....	2 .....	2 .....
Shop Work .....	5 .....	5 .....
	18	18

<i>Fourth Year.</i>	<i>First Term.</i>	<i>Second Term.</i>
Chemistry 1 .....	5 .....	5 .....
Physics 1 .....	3 .....	3 .....
Drawing and Design .....	3 .....	3 .....
Technology 1 .....	3 .....	3 .....
Shop Work .....	5 .....	5 .....
	19	19

## THE SCHOOL OF GENERAL SCIENCE

To carry out the work of the several technical schools of the College, an efficient instructing force and a complete modern equipment have been provided in the natural and physical sciences, as well as in mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years, and admitting of specialization later, when the student has matured his plans. Such courses constitute the work of the School of General Science, and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science. The natural introduction to this work is the College Preparatory Course.

### COLLEGE PREPARATORY COURSE

<i>First Year.</i>	1st Term.	2nd Term.
English 3 .....	3 .....	3
English 4 .....	2 .....	2
Mathematics 2 .....	5 .....	5
History 1 .....	3 .....	3
Drawing 1 .....	2 .....	2
Elementary Agriculture or Physiography .....	3 .....	3
Military Drill, or Physical Culture .....	1 .....	1
	<u>19</u>	<u>19</u>
<i>Second Year.</i>	1st Term.	2nd Term.
English 5 .....	5 .....	5
Mathematics 3 .....	5 .....	5
Zoology 1 .....	2 .....	2
History 2 .....	3 .....	3
Carpentry 5, or .....	2 Forging 4a, or .....	2
Physiography or Agriculture	3 Botany .....	3
Or * Language .....	3 Or Language .....	3
Military Drill or Physical Culture .....	1 .....	1
	<u>18 or 19</u>	<u>18 or 19</u>

\*Students may take German, French or Spanish, receiving a credit of three hours a week. This work must be continued in the freshman year.

## COLLEGE COURSE IN GENERAL SCIENCE

This course leads to the degree of B. S.

<i>Freshman Year.</i>	1st Term.	2nd Term.
English 6 .....	3 .....	3
Mathematics 4 .....	5 .....	5
Physics 1 .....	3 .....	3
Chemistry 1 .....	5 .....	5
Library Work .....	1 .....	1
	<u>17</u>	<u>17</u>

All of the work of the sophomore, junior, and senior years is elective; but students are required to complete two years of work in modern languages, and to take an equivalent of five hours through one year in English, of three hours in economics, and of four and one-half hours in zoology or in zoology and botany. With these restrictions, the whole field of college work lies open, with the understanding that the student will select some one major subject to which to direct his attention, and will group related courses around this, under the direction of the department in which he specializes. For convenience, the subjects offered have been grouped as below, and the requirement is that above the freshman year the student shall complete ten hours of his work in his major subject, ten hours in subjects found in the same group, and the remainder as he shall elect. For graduation, seventeen hours are required in the freshman year, and the equivalent of sixteen hours through each of the following years. A subject marked \* below cannot become a major in the General Science Course; and as required collateral work, the strictly technical studies are excluded.

### *Science Group.*

Physics.	*Animal Industry.	Chemistry.
Zoology and Entomology.	*Agronomy.	Botany.
Geology and Mineralogy.	*Domestic Science.	

### *Mathematical Group.*

Mathematics.	Physics.	Chemistry.
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### *Literary Group.*

English.	Political Economy.	Political Science.
History.	Languages.	*Commerce.



## WINTER COURSES

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For the accommodation of persons who can attend school during the winter months only, the following special courses are provided, beginning January 7, 1908. The Agricultural Course will be for four weeks, at the conclusion of which students may enter the regular work in Agriculture, beginning with the second term. The Domestic Arts, Mechanic Arts, and Commercial courses will be twelve weeks. The work is elective, the student being allowed, with the approval of the professor in charge, to select the studies desired.

Students who take any of the winter courses may elect such other regular College studies as they are prepared to pursue advantageously.

### AGRICULTURE.

	Hours.		Hours.
Soils and Farm Crops .....	5	Agricultural Chemistry .....	5
Stock Judging and Manage- ment .....	5	Horticulture .....	5
Stock Feeding .....	5	Entomology .....	5
Dairying Lectures .....	5	Vet. Science .....	5
Dairying Practice .....	5	Irrigation .....	5
		Poultry Keeping .....	5

### DOMESTIC SCIENCE AND ARTS.

Cooking Lectures .....	5	Sewing .....	2
Cooking Practice .....	2	Dressmaking .....	2
Hygiene .....	5	Fancy Work .....	2

### MECHANIC ARTS.

Carpentry A .....	5	Forging A .....	5
Carpentry B .....	5	Forging B .....	5

### COMMERCE.

Bookkeeping .....	4	Penmanship .....	2
Business Forms .....	2	Commercial Law .....	2

# Departments of Instruction

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## AGRICULTURE

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PROFESSOR BALL.

PROFESSOR NORTHROP.

PROFESSOR McLAUGHLIN.

PROFESSOR FREDERICK.

PROFESSOR C. LARSEN.

PROFESSOR HOGENSON.

PROFESSOR GOODWIN.

ASSOCIATE PROFESSOR TITUS.

ASSISTANT PROFESSOR J. T. CAINE III.

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## AGRONOMY

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1. SOILS AND CROPS. This course treats of the origin, formation, distribution, character, function, and classification of soils; the agencies now at work in soil formation and soil destruction with particular reference to the arid region; the reclamation of alkali lands; the constituents of plants, sources and action of plant foods; the production and cultivation of farm crops. Excursions are made to the farms for noting the growth and habits of different crops. Required of all third year students in the High School Course in Agriculture. Five hours per week during first term.

2. SOIL PHYSICS. This course includes studies in mechanical analysis of soils; moisture in soils and crops; the physical and chemical properties of soils; different methods of soil treatment and the influence each has upon moisture, texture, fertility

and production. Further discussions include soil texture as affecting capillarity; osmosis and diffusion as affected by cultivation, cropping and mulching; the determination of the absolute and apparent specific gravity of soils; the rate of percolation of water and air through soils; the effect of sub-soiling and various methods of tillage on soil moisture and crop growth; the effect of different crops on the soil and its productive capacity; the pore space; soluble salts; effective diameter of soil grains, etc.

Required of sophomores in Agriculture. Three hours per week during the first term.

3. FARM CROPS. This course covers the history, production, cultivation and general management of crops, including cereals, grasses, leguminous plants, root crops, etc. A thorough study of the plant is made, beginning with the seed and following it through its entire cycle,—the root, stem and leaf development of different farm crops; the conditions affecting seed germination; the constituents of plants; the way in which plants absorb their food; the general ways of improving and adapting plants to particular needs; systems of rotation; the extermination of weeds, etc. Required of seniors in Agronomy. Three hours per week during first term.

4. ARID FARMING. In this course instruction is given in the methods best adapted to the growing of profitable crops on arid lands; the treatment of the soil, including the conservation of moisture by deep and fall plowing, mulching, etc.; the soils and crops best adapted to arid farming. The experiments being carried on at the different arid experimental farms in the State will be discussed, together with the other problems which confront the arid farmer of today. Required of seniors in Agronomy. Three hours per week during first term.

5. MANURES. Students become familiar with the various manures best suited for different crops; natural and artificial manures, their composition, economy of use and influence upon the soil and crop. The manurial requirements of different soils are

studied by means of plat work on the farm, and in pot or basket cultures in the plant house. Elective. Three hours per week during one term.

6. HISTORY OF AGRICULTURE. This course covers the general progress of agriculture in those nations which have contributed most to agricultural development. Elective. Three hours per week for one term.

7. INVESTIGATION AND EXPERIMENTATION. In the first part of this course students make a study of the organization and work of the U. S. Department of Agriculture and of Experiment Stations. They become familiar with the experimenters and agricultural literature of this and other countries. Abstracts are made of a number of bulletins, bearing on a selected line of work. An original experiment is outlined, brought before the class for criticism and suggestion, performed, and written up by the student. Required of seniors in Agronomy. Five hours per week during second term.

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## ANIMAL HUSBANDRY

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1. MARKET TYPES. The judging of market types of horses, beef cattle, sheep and swine. Some score card practice will be given, but most of the work will be comparative judging of groups of animals. Required of freshmen in Agriculture. One lecture and two judging periods a week, first term. Three hours credit.

2. BREED TYPES. This course covers the origin, history, and characteristics of the different breeds of horses, beef cattle, sheep and swine, especial stress being laid upon their adaptability to western conditions. In addition instruction in the judging of representatives of different breeds, according to their official standard, will be given. Required of juniors in Animal Husbandry and Dairying. Two lectures and one judging period per week, second term.



3. **ANIMAL NUTRITION.** This course includes a brief study of the anatomy and physiology of the digestive system, and the purpose of nutrition. The theory and practice of feeding, with special reference to Utah's conditions as to feed, climate, etc., are taken up. Required of juniors in Animal Husbandry and Dairying. Three hours credit throughout the year.

4. **PRINCIPLES OF BREEDING.** This course includes a study of the laws of heredity, correlation, reversion, variation, and fecundity, and of the methods of breeding, cross-breeding, in-and-in breeding and selection. In addition, special study will be given to the methods of celebrated breeders. Required of seniors in Animal Husbandry and Dairying. Three hours per week during second term. Three hours credit.

5. **LIVESTOCK MANAGEMENT AND HERD BOOK STUDY.** The housing, care and management of the different classes of livestock will be taken up first half term. A study of the various herd books and the pedigrees of noted individuals of the important breeds will take up last half of term. Elective to students in Animal Husbandry and Dairying. Three hours credit.

6. **ADVANCED STOCK JUDGING.** A course in the judging of groups of animals of all classes. It takes up the work done at fairs, and prepares students for real judging in the ring. Elective to students in Animal Husbandry and Dairying. Prerequisites, Animal Husbandry 1 and 2. Two two-hour judging periods. Two hours credit.

7. **POULTRY CRAFT.** This course consists of a series of lectures, supplemented by practical work with fowls. Each student will take up actual work of artificial incubation and brooding, crate-fattening of fowls, and the management of a practical, modern poultry plant by actual experience in the several operations. Plans and specifications for different types of poultry houses will be prepared, and a similar plan of a complete plant is required before the course is completed. The work will be practical rather than theoretical, and will cover feeding, breeding, in-

cubating and rearing chicks; dressing and marketing; diseases, etc. Three hours credit.

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## DAIRYING

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1. GENERAL FARM DAIRYING. This course is largely a combination of the most essential things embodied under Dairying two and three. It is given to fill the requirements of students taking the High School Course. Required first semester, second year of High School Course. Two hours a week.

2. FARM DAIRY PRODUCTS. In this course a study is made of milk; its secretion, physical, and chemical properties; uses of; comparative economy in disposing and utilizing for various purposes on the farm; of testing for fat, acid and common adulterations; of the effects of germs and degree of purity on dairy products; of separating and handling milk and cream, and manufacturing butter and cheese on the farm. Required of juniors in Animal Husbandry and Dairying, first semester. Two lectures and one laboratory period a week. Three hours credit.

3. INSPECTING AND TESTING DAIRY PRODUCTS. Students taking this course should have had one term's work in chemistry. The course embodies a thorough study of the Babcock test for fat, and one of the tests for determining acidity of dairy products; of the influence and detection of different preservatives and adulterations, and a study of the various dairy pure food standards. Required of juniors in Animal Husbandry and Dairying, second semester. Two lectures and one laboratory period per week. Two hours credit.

4. ADVANCED DAIRYING. The various methods of improving and building up a dairy herd will be emphasized; methods of weighing, testing and recording the milk produced by each cow will be outlined. The history and adaptability of various dairy breeds to different conditions, and the relation of dairy types of milk producing capacity, will be studied. A study will be made

of the extent to which dairy farming is practiced, and under what conditions it may be adopted; of dairy farming as an independent business, and as an adjunct to general farming; and the arrangement and construction of dairy farm buildings, stalls, yards, etc. Prerequisites, Animal Nutrition and Principles of Breeding. Required of seniors in Animal Husbandry and Dairying. Two lectures and one hour judging. Three hours credit.

5. OPERATION OF CREAMERIES AND CHEESE FACTORIES. A thorough study is made of the receiving, sampling and separation of milk, the preparation and use of starters, ripening of cream, principles of churning, salting, working, packing and marketing butter.

This course includes a study of milk as applied to the manufacture of soft and hard cheese, the principles involved in the setting, cutting, heating, milling, salting, pressing, curing and marketing of cheese.

Attention will be given to the organization, location, construction, drainage and ventilation of creameries and cheese factories; the economic disposal of factory by-products and various methods of factory refrigeration. Prerequisite, Dairying 2. Elective. Three lectures and two laboratory periods per week. Five hours credit.

6. DAIRY TECHNOLOGY. This course treats of the ways in which milk and its products are utilized outside of the scope ordinarily considered under dairying. It embraces such subjects as value of milk as a food; the preparation of certified, modified, standardized, fermented and condensed milk; the manufacture of casein, milk ivory, milk sugar, renovated butter and oleomargarine. Prerequisites, Chemistry and Bacteriology. Elective. Two hours per week.

7. RESEARCH WORK. Consists of a study of various views held by different authorities on certain important dairy subjects; of a digest of recent dairy work of the Experiment Stations, and of comparative dairying as practiced in leading dairy countries,

A reading knowledge of German is recommended. Elective. Three hours per week.

8. DAIRY PRACTICE. The College has a practical creamery and cheese factory in operation every day except Sundays. Students who specialize in dairying and need practical experience should take this course. Arrangements can be made to do this practical creamery work at almost any time during the day. Elective. Five hours per week.

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## ONE YEAR DAIRY COURSE

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Last year several applications were made for men qualified to operate creameries, cheese factories, and dairy farms at salaries ranging from \$50 to \$135 per month. A course (p—) has been outlined to train men to fill such positions, and also to aid them to operate dairy farms and factories more profitably for themselves.

Special emphasis is given to practical dairy work. Enough of the fundamental subjects have been included in the course to give an opportunity for review work.

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## TWO WEEKS' WINTER DAIRY COURSE

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This course is offered to meet the demands of those creamery and cheese factory operators who cannot spare the time to take a more extended dairy course. The rapid progress and profitable application of scientific principles to the dairy industry makes it important that every cheese and butter maker take at least a short course in dairying.

This course will consist chiefly of the best methods of handling hand separator cream; the control of overrun in the creamery; the preparation and use of starters; the testing of milk and cream for fat and adulterations; the management of



creameries and cheese factories; the various steps in the manufacture and curing of cheese.

Special instructors and lecturers will be employed during this course.

14 lectures on the manufacture of butter and cheese.

7 lectures on operation of dairy machinery, boilers and engines.

7 lectures on dairy business methods.

In addition, special lectures.

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## ENTOMOLOGY

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1. ECONOMIC ENTOMOLOGY. A series of lectures on the injurious and beneficial insects of the region. Life-histories will be discussed and specimens of all stages studied. The student will become familiar with the use of different kinds of spraying apparatus and the preparation of spraying mixtures and other insecticides. Smith's *Entomology* and Comstock's *Manual* will be used as reference texts. Required of second year students in the Agricultural Course and elective to others. Two recitations a week during the second term. Two hours credit.

2. GENERAL ENTOMOLOGY. A careful study of typical examples of each group; collecting, mounting, and classifying in all orders; the working out of life-histories of injurious species and the application of remedies. Required of juniors in the Agricultural Course and elective to others. Two hours throughout the year.

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## HORTICULTURE

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1. POMOLOGY (Fruit Growing). This course deals with the theory and practice of fruit growing and is treated under the two following heads, including the regular lectures, laboratory

work and practical demonstrations in orchard and nursery practice, with trips to leading orchards and nurseries.

(a) The practical side is considered in relation to selection of site for an orchard, reference being made to the soil, exposure, markets and general climatic conditions; also planting and laying out an orchard, profitable varieties, the general care and management, including such subjects as the cultivation, irrigation, pruning and spraying, are taken up. Reference works: *American Fruit Culturist*, Thomas; *Principles of Fruit Growing*, Bailey; *Bush Fruits*, Card; and *Systematic Pomology*, Budd and Hansen. Required of juniors in Horticulture and of seniors in other agricultural courses. Three class recitations per week.

(b) The systematic aspects of the subject will be given careful study in the laboratory, together with lectures and practice upon the description and identification of all species and varieties obtainable. The origin and classification of cultivated fruits will be thoroughly reviewed. Bulletins from various Experiment Stations, and pomological records will be studied. Required of juniors in Horticulture. Two laboratory periods a week.

2. GARDENING. The course is designed to treat the subject from the standpoints listed below.

(a) *Floriculture*. During the first part of the term (the winter months) the student is instructed in the practical work of the greenhouse such as the propagation and management of greenhouse plants, together with a study of vegetable and cut flower forcing and the construction and arrangement of greenhouses. Attention is given to the preparation of soils, propagation, planting, transplanting, trimming and training house plants; the treatment given bulbs and other plants used for winter decoration and window boxes, and the care during winter of plants used in borders and beds outside. Reference works: *Nursery Book*, Bailey; *Practical Floriculture*, Henderson; *Greenhouse Management and Greenhouse Construction*, Taft; and *Home Floriculture*, Rexford.

(b) *Olericulture* (Vegetable Gardening.) This course treats of the origin, history and botanical relationships of garden vegetables. A study is made of the location, requisites of soil, fertilizers and general cultivation, planting, transplanting, rotating, harvesting, storing and marketing crops. Opportunity is given for practical work in the gardens. Bailey's *Principles of Vegetable Gardening* is used as a text.

(c) *Landscape Gardening*. This part of the course will be devoted principally to the home grounds. A study will be made of the principles governing the laying out of walks and drives, making of lawns, planting of shrubbery, designing of beds and borders—in short, everything relating to the ornamentation of the home grounds. The College campus has a very complete collection of the trees and shrubs desirable to plant for decorative purposes. This gives students ample opportunity to become familiar with them during the early part of the summer. Excellent reference works are in the library. Required of juniors electing Horticulture. Five hours per week, second semester.

3. PLANT BREEDING. It is intended to give a more thorough knowledge of the principles underlying the improvement of plants. The opinions of the leading scientists are studied in relation to variation, heredity, hybridization, etc. Required of seniors in Horticulture and Agronomy. Five hours a week during first term.

4. EVOLUTION OF PLANTS. Following Plant Breeding and as a sequel to it will be given a course dealing with the evolution of plants. Particular attention is given to the origin and domestication of those commonly cultivated. Required of seniors in Horticulture. Five hours a week during spring term.

5. INVESTIGATION. Seniors in Horticulture and Entomology will be allowed to carry on investigations along the lines in which they have special interest. This course will require an equivalent to two laboratory periods each week per hour of credit given, the work being done at the time best suited to the student. Elective through year to advanced students in Horticulture.

6. **FORESTRY.** The study of trees in relation to soil, environment, altitude, humidity, temperature and winds. Their distribution, means of propagation, the starting of windbreaks, shelter belts and forest plantations, and the trees and shrubs of Utah are given attention. Reference works: *Forestry of Minnesota*, Green; *First Book of Forestry*, Roth; and bulletins. Elective to advanced students. Three hours a week during the second term.

7. **LANDSCAPE DESIGNING.** A study of ornamental plants and methods of grouping the same with reference to the laying out of public grounds, parks, etc. Plans are required to be submitted showing the application of principles studied in certain problems. Elective, spring term. Three hours credit.

8. **HORTICULTURAL LITERATURE.** A critical study and examination of books, bulletins, reports, etc., dealing with horticultural subjects. Elective. Time and credit arranged according to circumstances.

9. **ADVANCED POMOLOGY.** To those students who desire to elect advanced work in Pomology, certain problems dealing strictly with the raising and handling of fruits will be assigned for careful study. Credit and time arranged according to work.

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## IRRIGATION AND DRAINAGE

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1. **FARM IRRIGATION AND DRAINAGE.** This course is designed especially to meet the requirements of the student who can spend but a limited time in this subject. Lectures will be given on methods of farm drainage for the removal of surplus water and alkali. Field excursions will be made to farms which are being drained and the practical side of the question will be given prominence. The elementary principles of arid farming will receive attention during the latter part of this course. Required of third year High School students.

2. **SOILS, WATERS, ETC.** This course deals essentially with the effect of the soil and moisture environment upon plant pro-



duction; the effect of applying different amounts of irrigation water and in various ways upon the quantity and quality of the plant; the duty of water as influenced by various soil types for different crops; the growing of crops for quality and for quantity; the best methods of handling irrigation water; the economic use of irrigation water. Required of juniors in Irrigation and Drainage, Agronomy and Horticulture and Entomology. Three recitations per week.

3. FARM DRAINAGE. This course will include the general treatment of the subject of drainage of lands in the arid section. Special reference will be made to laying out and constructing various kinds of under drains. Required of juniors in Irrigation and Drainage, and Agronomy, and seniors in Horticulture and Entomology. Three recitations per week, second term.

4. IRRIGATION. This course will be designed to meet the practical problems included in the operation of canal systems, including sources of supply and methods of securing and improving such supplies. Particular reference will be made to canal management, methods of measuring and dividing water and preventing seepage losses. Required of juniors in Irrigation and Drainage.

5. IRRIGATION. Laboratory work to supplement lecture and field work in water measurements, drain tile making, etc. Required of juniors in Irrigation and Drainage. Three laboratory periods. Three hours credit.

6. IRRIGATION. This course will be more or less experimental and includes surveys for farm and district drainage systems, with estimates, and designating the best system of operation to meet various conditions. Class work will consist of lectures and text book work similar to the material in Wilson's Irrigation and Elliott's Practical Farm Drainage. Required of seniors in Irrigation and Drainage. Three recitations per week, first term.

7. IRRIGATION. This course will treat especially of the State Federal laws relating to irrigation and drainage, including

methods of appropriating water and forming irrigation districts and drainage districts. Required of seniors in Irrigation and Drainage. Three recitations per week, second term.

8. IRRIGATION. This course will include special investigations in connection with the Experiment Station work in either irrigation or drainage. Required of seniors.

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## VETERINARY MEDICINE

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The importance of establishing a Department of Veterinary Medicine in connection with the Utah Agricultural College has been urged for some time, but no definite steps have been taken until the present year, when the Board of Trustees authorized the first two years work of a course in Veterinary Medicine to be offered by the College. Two years more will be offered later, making a four year College course, leading to the degree of Doctor of Veterinary Medicine, D. V. M.

The department aims to provide a thorough education in all that pertains to veterinary medicine, and the course will be equal to any offered in this branch of the natural sciences. At every step the student is drilled in all the practical and technical details of the profession, a broad foundation being laid at the outset to enable him to take a comprehensive view of the subject. In the beginning of the course he is shown the relations between the three great kingdoms of nature—animal, vegetable, and mineral—and the biological and chemical forces that govern them, especially their application to animal life. With an understanding of the life and growth of the normal animal, the student is introduced to the various influences which operate to mar or disturb this condition, such as environment, use, climatic conditions, and vegetable (bacteria and fungi) and animal parasites. The alterations produced in the tissues of the normal animal by these agencies, the disturbance of function which they cause, and the power of medicines and surgical interference to afford relief, are

studied in detail. The relations existing between disease in animals and in man, and the several avenues of transmission are given proper attention, and in the end the student is fitted not only to deal with the ordinary problems presented in veterinary practice, but also to work out the complex and strange conditions so frequently met.

The treatment of sick and disabled animals is only a small part of the modern veterinarian's work; in fact, it is in the line of preventative medicine that he is able to render the most valuable service, and this course is designed to prepare him to enter upon any part of this broad field of labor. Instruction will be by both the lecture and the text-book method, and the class room work will be supplemented by practical work in hospital and clinics, and by systematic courses in laboratories.

The veterinary hospital and the free clinics furnish abundant opportunity and material for practical work. Situated in an extensive stock-growing district, the College is especially favored, many horses and other domestic animals being brought to the clinics and the hospital for treatment. During this course, opportunity is afforded to witness nearly all the operations performed in veterinary surgery, together with the methods of treating the internal diseases.

Students of Veterinary Medicine have the benefits of all the facilities offered by the numerous departments of the College, wherever these may be utilized to their advantage. Specially equipped laboratories afford excellent opportunity for the study of anatomy, histology, pathology, chemistry, botany, and the related sciences. The students have access to a very extensive library. The conditions under which the student is placed are as favorable for the enjoyment of life and the development of manhood as can be desired.

#### REQUIREMENTS FOR ADMISSION.

Candidates for the degree of D. V. M. having a college degree, a teacher's first grade certificate, diploma from an accredited High School, or having passed successfully the entrance re-

quirements of a recognized college, will be admitted without an examination. Other candidates for admission will be required to pass or take the Preparatory Veterinary Course, and to show other evidence of sufficient ability to follow with profit the instruction offered in the Veterinary Course.

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## VETERINARY SCIENCE

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2 and 3. COMPARATIVE ANATOMY OF THE DOMESTIC ANIMALS. This subject is studied through the entire freshman and sophomore years, and embraces descriptive and practical anatomy. Descriptive anatomy is taught by a series of lectures, including the study of the bones, articulation, muscles, circulatory apparatus, the nervous system, the respiratory system, and the organs of digestion, the urino-genital apparatus, and the organs of special sense. The lectures will be supplemented by demonstrations from mounted skeletons, prepared specimens and charts. Practical anatomy comprises a comprehensive and thorough course in dissection. Each year the student is required to make two complete dissections of the horse and such parts of other animals as may be deemed necessary. Freshmen will devote their time in the dissecting room to the study of the bones, articulations and muscles. Sophomores will make special dissection of the nervous system, circulatory apparatus, lymphatic glands, organs of special sense, and the organs contained in the thoracic and abdominal cavities. Each student is required to dissect and pass an examination on the part assigned before passing to the dissection of another part.

Veterinary Science 2 required of seniors in Animal Husbandry and freshmen in Veterinary Course.

Veterinary Science 3 required of sophomores, Veterinary Course.

Three hours per week throughout the year. Three hours credit.



4. **PHYSIOLOGY.** The course in Physiology consists of lectures and demonstrations studied by the comparative method, the vital functions of the different species of the domestic animals and those of the human body being compared. The subject is taught in two courses. The physical and chemical laws as they are related to physiology, and the general properties of animal cells, their origin, development and growth. This course is given during the first term. Consists of the study of the special physiology of the various organs and tissues of the animal body. Given during second term. Required of freshmen in Veterinary Course. Elective to others. Three hours credit.

5. **HISTOLOGY.** The subject is taught chiefly in the laboratory as an introduction to a short course in microscopy, designed to give the student a working knowledge of the microscope and microscopical methods. Descriptions of the microscopic structure of the tissues are given, and students are required to observe the same by the aid of the microscope. Students are taught how to collect, fix, imbed, section and stain, mount and preserve, the normal tissues of animals, and study them under the microscope. Required of freshmen in Veterinary Course. One recitation and one laboratory period per week. Two hours credit.

6. **MATERIA MEDICA.** The subject is taught by a systematic course of lectures. The student is made acquainted with the different drugs and preparations, and their leading properties. The study includes all the preparations used in Veterinary Therapeutics, botanical name, natural order, habitat, description of the properties, method of preparation, adulterations, names of the therapeutic actions, preparations official in the United States Pharmacopœia.

Required of sophomores in Veterinary Course. Two recitations per week. Two hours credit.

7. **GENERAL PATHOLOGY.** This treats of the causes of disease, its spread and generalization, the protecting and healing forces, disturbances of circulation and nutrition, hypertrophy and

regeneration, inflammation and tumors; the general technique of laboratory diagnosis. Required of sophomores in Veterinary Course. Two recitations and one laboratory period per week. Three hours credit.

8. CLINICS. Free clinics will be held at the hospital, and all students taking any of the courses in Veterinary Science are required to attend and assist in the work. It will consist of free examination and treatment of animals brought, with a nominal charge for hospital treatment. This will give the student ample opportunity to apply the work of the class room in actual practice. Numerous cases are brought in, representing all diseases common to this section of country and furnishing the clinic with abundant material for observation and actual practice.

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## AGRICULTURAL TECHNOLOGY

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1. MECHANICAL DRAWING. The course includes instruction in the elementary principles of mechanical and free hand drawing, with practice in the use and care of drawing instruments. Required of sophomores in Agriculture.

2. PLANE SURVEYING. The general methods of plane and topographic surveying and the use, care and adjustment of instruments. The field work is adapted to the requirements of the agriculturist in irrigation, drainage and land surveying. Required of sophomores in Agriculture.

3. FARM MECHANICS. This course deals with the tools and machinery of the farm, their development, design, construction, operation, draft, durability and care. This will include a study of steam and gasoline engines. Required of seniors in Agriculture. Three hours per week, second term.

4. RURAL ENGINEERING. The principles of rural road construction; arrangement, cost and design of farm buildings; fences, gates and material for their construction; the laying out

of the farm and related problems. Required of seniors in Irrigation and Drainage and in Agronomy. Three recitations per week, first term.

5. **HYDRAULICS.** This course will meet the wants of the agriculturist rather than the requirements of the engineer. The flow of water in natural and artificial open channels, in pipes and flumes; the elementary laws of liquids in motion and at rest, and the elementary principles of water power development. Required of seniors in Irrigation and Drainage. Five recitations per week throughout the year.

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## DOMESTIC SCIENCE AND ARTS

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ASSOCIATE PROFESSOR COOPER.

ASSISTANT PROFESSOR COOK.

GERTRUDE VIBRANS.

INEZ POWELL.

MYRTLE BALLARD.

JEAN CROOKSTON.

INEZ STRATFORD.

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1. **LAUNDERING.** A study of soaps, washing fluids and powders, bleaching agents, bluing, starches and water, hard and soft, in their relation to laundry work; practical work in laundering and cleaning various fabrics. Required first third of second year High School Course in Domestic Science and first third of first year Manual Training Course in Domestic Arts. Three lectures and two laboratory periods per week.

2. **FOODS.** A study of foods: their sources, process of manufacture, marketing, nutritive value, digestibility and cost; a study of cooking processes and the principles underlying the cooking of meats, vegetables, fruits and various made-dishes. Meals will be planned, food prepared and served. The student will be trained in accuracy, order and economy, and in the gen-

eral care of the kitchen and its utensils. Required second and last thirds of first year Manual Training Course in Domestic Arts. Three lectures and two laboratory periods per week.

3. HOME SANITATION. Study of location and surroundings of a residence, its plan, care and furnishing from a sanitary standpoint. Systems of lighting, heating and ventilating, also value of pure air and sunshine, will be discussed. Required first half of second year Manual Training Course in Domestic Arts. Three hours per week.

4. HOME NURSING AND INVALID COOKING. Emergency work—arrangement and care of the sick room, care of children, practical work in bed making, bandaging, care of patients, invalid cookery and diets for special diseases. Required first half of second year Manual Training Course in Domestic Arts. Two laboratory periods per week.

5. HOME ECONOMICS. Study of systematic housekeeping, division of labor, keeping accounts, domestic service, etc., arrangement and furnishing of rooms with a view to economizing strength and time and promoting the general happiness of the inmates. Required second half of second year Manual Training Course in Domestic Arts. Three hours per week.

6. HOME ART. A study of landscape gardening, proportion and good lines in furniture, color schemes, room decoration, textiles, etc. Required second half of second year Manual Training Course in Domestic Arts. Two laboratory periods per week.

7. FOODS. A study of the following topics: *Fruit*—value in the diet, methods of canning, making jellies, preserves and relishes; *dietaries*,—diets for people of different ages, vocations and localities. *Meal service*—Duties of hostess. Students plan the menu, do the marketing, prepare and serve a dinner, luncheon, tea, and chafing-dish luncheon. A three course lunch is served daily during the winter months. Required third year of the Manual Training Course in Domestic Arts. Three lectures and two laboratory periods per week.



8. FOODS. A study of fruits and other foods, their source, production, care, preservation, nutritive value and cost; of cooking processes and the effect of heat and moisture on the proteids, carbohydrates and fats, balancing of menus, preparation and serving of typical meals with a given sum of money. Required freshman and third year of the Domestic Science Courses. Five lectures and two laboratory periods per week.

9. HOME CONSTRUCTION, SANITATION AND ART. Special lectures. The study of a city and a country dwelling, its situation, surroundings, plans, construction and furnishing; relative value of building materials, wood finishes, mechanical means of heating, lighting and ventilating; hot and cold water, means of disposal of waste; use of antiseptics for cleaning purposes, arts as applied to all phases of home life. Required sophomore year of the Domestic Science Course. Three lectures and two laboratory periods per week.

10. FOODS. *Experimental Cookery*. The aim of the work is to lead the student to discover what cooking processes give best results in retaining nutritive principles in the most digestible form. *Demonstration*. The student chooses her subject and demonstrates before the class. *Dietetics*. Diets with cost are worked out for infants, children, adults, and the family. Meals will be served, quantity, nutritive value, and cost of nutrition will be estimated. Required first and second thirds of junior year Domestic Science Course. Three lectures and two laboratory periods per week.

11. HOME NURSING AND INVALID DIETS. Emergency work and care of children. Special diets for special diseases. Required last third of junior year Domestic Science Course. Three lectures and two laboratory periods per week.

12. HOUSEHOLD ECONOMICS. The study of the home organization; division of income, cost of living, methods of house-keeping, division of labor, servant question. Required first half senior Domestic Science Course. Three hours per week.

13. PRACTICE IN TEACHING.....Study of Domestic Science from the educational standpoint. The student will plan courses and equipment (with cost) and do the actual teaching. Required first half senior year Domestic Science Course. Two laboratory periods per week.

14. HOME AND SOCIETY. Study of the home as a social factor. The laboratory periods will be given to research work. Required second half of Senior Year Domestic Science Course. Three lectures and two laboratory periods per week.

15. FOODS. *Camp Cooking*. The aim of this course is to give a general knowledge of the underlying principles of cookery and of their application to foods that are used in camp life; the study of cooking processes best adapted to camp conveniences, the planning of outfits for camp comfort. Elective. Two laboratory periods per week second half year.

16. Courses for caterers, matrons and housekeepers. Elective.

#### SEWING.

1. HAND AND MACHINE MODELS. The student makes a set of models covering the full course in hand and machine sewing. Talks are given on the position of the body and care of the eyes while sewing, on color and on the nature and manufacture of materials used. Required first half of first year in the Manual Training Course of Domestic Arts. Ten hours per week.

2. PLAIN SEWING. The student is taught to cut, fit and make a suit of underwear, a shirtwaist and a dress of wash material, from patterns made according to the system used throughout the course. Required second half of first year Manual Training Course in Domestic Arts. Ten hours per week.

3. DRESSMAKING. Includes draughting from measurements, patterns for waists, skirts, sleeves, etc.; practice in cutting and basting; also cutting, fitting and finishing a worsted dress and fancy waist. Required first half of second year Manual Training Course in Domestic Arts. Eleven hours a week.

4. DESIGNING, CUTTING AND FITTING. A study of grace in design of costume and harmony of color. Further practice in cutting and fitting. Required second half of second year Manual Training Course in Domestic Arts. Eleven hours per week.

5. (a) ADVANCED DRESSMAKING. Practical costume making, cutting, basting, fitting, pressing, trimming and finishing, draughting from measurements, patterns for waists, skirts, sleeves, princess gowns, jackets, coats, etc.

(b) HISTORY OF COSTUME. This is a study of the covering for the body, how it came into use, materials from which it was made, what each tribe of people wore, and the changes in costume from pre-historic times to the nineteenth century. Required first half of third year Manual Training Course in Domestic Arts. Ten hours a week.

6. ART NEEDLE WORK. This consists of hemstitching, drawn work, Kensington embroidery. Required second half third year Manual Training Course in Domestic Arts. Ten hours a week.

7. ART NEEDLE WORK. Roman cut work, jeweled embroidery, Mount Mellick embroidery, and modern lace making. Required first half of third year Manual Training Course in Domestic Arts. Ten hours a week.

8. HAND STITCHES. The student makes a set of models, covering the full course in hand sewing, and involving practice in basting, overhanding, overcasting, etc. Talks are given on the position of the body and care of the eyes while sewing, on color, and on the nature and manufacture of materials used. Required first half year Domestic Science Course. Five hours a week.

9. MACHINE WORK. The student is taught the use and care of various machines. Regular practice is given in running, hemming, felling, etc. Drawers, skirt, and underwaist are cut and made. Required second half of first year Domestic Science Course. Five hours a week.

10. MACHINE WORK. The students are taught to adopt and use patterns, to cut, fit, and finish a dress of wash material, and to cut, fit, hang, and finish one lined skirt of worsted material. Required of second year students in Domestic Science. Four hours a week during the first twelve weeks of the first term, and six hours a week during the next six weeks.

11. DRESSMAKING. This course includes plain draughting from measurements, practice in cutting and basting, and cutting, fitting, and finishing one fancy waist. Required second half of second year Domestic Science Course. Six hours a week.

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## COMMERCE

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PROFESSOR BEXELL.

PROFESSOR THOMAS.

PROFESSOR ROBINSON.

MR. JENSEN.

MR. STEPHENS.

MR. HANSEN.

POLITICAL ECONOMY.

### *I. General Courses.*

1. ECONOMICS I. Discussion of wealth, nature and requisites of production, diminishing returns from natural agents, labor and its increase, efficiency of production, credit, interest, wages, the industrial manager, prices, rent, socialism, taxation, the national debt, free trade, protection, bimetallism, United States notes, banking, the National Banking System, the labor problem, and co-operation. Bullock's *Economics*. Required in the third year of the Commercial Course. Three hours a week throughout the year.

2. ECONOMICS II. Three main purposes are kept in view in this course: a clear analysis of the mechanism and functions of industrial society; a fundamental discussion of wealth and monop-



oly—their origin, uses, and abuses; a dispassionate discussion of economic questions that have become political questions. Much reading and many theses are required. Required of seniors in all College courses except Commerce. Not open to students who have taken Economics 1. Three hours a week throughout the year.

3. SOCIOLOGY. The main topics treated are the subject matters of sociology, relation of sociology to other subjects,, sociology as a science, division of sociology, society regarded as a contract, society as an organism, physical basis of society, association, meaning of association, the social mind, causes of social activity, industrial organization of society, the family, the state, the individual, external description of social development, processes of social development, natural selection in human society. Lectures and research. Elective to juniors in Commerce. Four credits.

4. ADVANCED ECONOMICS. Special stress is laid on the economic and industrial history of the United States. This is a research course under the direction of the Professor in charge. Elective to seniors in Commerce. Five credits. See regulation regarding thesis.

## *II. Banking and Finance.*

I. (a) MONEY. Money as a commodity, coinage, legal tender, gold standard, International Monetary Conferences, Colonial bills of credit, Revolutionary bills of credit, greenbacks, Confederate currency, silver dollars, panic of 1893, present conditions, etc.

(b) BANKING. Functions of a bank, the clearing house system, early American banks, the Bank Ware, the Safety Fund Bank, the national bank system, state banks, savings banks, loan and trust companies, problems, etc.

(c) FUNDING OPERATIONS AND CORPORATION FINANCE. Money funds and credit, obtaining funds by inheritance, exchange, sales of commercial credit, long time paper, etc. Fund-

ing operations by the United States Treasury, the savings bank, building and loan associations, commercial banks, trust companies, brokers, and insurance companies. The general practice of funding corporations and other large business enterprises.

(d) THEORY AND PRACTICE IN PUBLIC FINANCE. History of financial systems, theories of public expenditures, various methods and practices of taxation and other sources of income, public credit, relations of our Federal Treasury to our monetary system.

Required of juniors in Commerce. Three hours a week throughout the year.

2. This is a research course under the direction of the Professor in charge. Topics for investigation are drawn from the following subjects: commercial organizations; trusts and monopolies; depressions, panics and crises; and insurance.

Elective to seniors in Commerce. Five credits. See regulation about thesis.

### *III. Production and Manufacture.*

I. COMMERCIAL GEOGRAPHY AND MATERIALS OF COMMERCE. The main topics treated are: basis of the work, natural conditions affecting commerce, human control of commerce, transportation and commercial routes. There is a discussion of the leading countries of the world under the following heads: climate, natural features, distribution of leading products, vegetable food products, vegetable and animal fibres, wood crop, mineral, manufacture, agriculture; distribution, necessities and advantages of freight rates, seaports, railroads, canals; trade tendencies, brief historical summaries, cause for shifting trade centers, present trade tendencies and new regions now being opened, navigation, ocean routes, and such collateral topics as may be necessary to supplement the work outlined. This course presupposes a fair knowledge of mathematical and political geography, and a minimum knowledge of general history. Required

of all sophomores in the Commercial Course. Three hours a week throughout the year.

2. (a) PRODUCTION AND MANUFACTURE I. This course deals with the comparative and extensive sides of the subject. There is a brief survey of latent commercial possibilities, as follows: surface indications, unexplored regions, probable demands upon the earth through future inventions, possible outcome of inhospitable regions and of desert areas, effect of known latent resources upon the expectations and policies of mankind. Present resources of leading nations are then considered, together with their influence upon trade routes. There follows a discussion of complete economic systems, past and present, and of the relation of social and political development of industrial mechanisms. Elective. Five hours a week until holidays.

(b) PRODUCTION AND MANUFACTURE II. This is the intensive course, concerned with direct and indirect production. There is a careful study of the productive and manufacturing processes through which such representative commodities as wheat, cotton, sugar beets, tobacco and lumber pass, in going from the producer to the consumer. The work in indirect production considers cotton and woolen goods, steel, boots and shoes, etc. Elective. To continue from holidays to the end of the year. Five hours a week.

3. ECONOMICS OF MACHINE INDUSTRY. This course includes a brief treatment of the history and development of machinery and a discussion of the economic and social effect of labor-saving invention upon society. Elective to juniors and seniors. One term. Three hours a week. Not offered in 1907-08.

#### *IV. Trade and Transportation.*

1. HISTORY OF COMMERCE. The development in Egypt, Greece, Rome, Florence, Medieval Europe, etc., down to and including the commercial nations of modern times. Special attention is given to materials and machinery of commerce, to trade routes, and to the relations between commercial developments and

other branches of the history of civilization. Required of seniors in Commerce. Three hours a week during the first term.

2. This is a research course under the direction of the professor in charge. Subjects for investigation are selected from the following: merchandizing; domestic trade; transportation and communication; and foreign trade and relations.

Elective to juniors in Commerce. Four credits. See regulation regarding thesis.

3. THEORY AND PRACTICE IN ADVERTISING. A study of the fundamental principles of modern advertising. Special emphasis will be given to the peculiarities of composition in newspaper and circular advertising, proof-reading, effectiveness of design, illustrations, coloring and display, etc.

Elective to juniors and seniors. Three hours a week during the second term. Not offered in 1907-08.

#### POLITICAL SCIENCE.

1. CIVIL GOVERNMENT. Our European ancestors, origin of states and state institutions, English and American governments compared, state and foreign service, the treasury, money and coinage, banks, the post office, the executive departments, legislation, the constitution, federal and state powers, political parties, party issues, etc. Required of second year students in Commerce. Three hours a week throughout the year.

2. (a) COMMERCIAL LAW. Formation of contracts; dealing with offer and acceptance, form and consideration, capacity of parties, reality of consent, and legality of object. Operation of contracts, including limit of contractual obligations and assignment. Interpretation, rules of evidence, and rules of construction. Discharge of contracts; the agreement, performance, breach, impossibility of performance, and operation of law.

(b) LAWS OF BILLS AND NOTES. Maker's, acceptor's, drawer's and indorser's contracts; proceedings before, upon, and



after dishonor ; accommodation papers ; grantor and surety ; holder's position ; defense ; equities, etc.

(c) CORPORATION LAW. Kinds, formation, powers, liabilities, ownership, shares, subscriptions, calls, notice, transfers, management, officers, directors, contractual powers, dividends, dissolutions, etc.

(d) PARTNERSHIP LAW. Formations of partnerships, essentials, liability of members, capital, profits, good-will, individual and firm liabilities of members, capital, profits, good-will, individual and firm property, agency for partners, usage, majority, torts of partners, dissolution, winding up, priority, distribution, etc.

Required of freshmen in Commerce. Three hours a week throughout the year.

3. (a) CONSTITUTIONAL LAW. The Constitution ; the rise of the American Union ; distribution and powers of the government ; powers of Congress ; powers of the Executive ; the judicial departments ; checks and balances of governments ; government of the territory ; the admission of new states ; amendments to the constitution ; civil rights and their guarantees ; protection of persons accused of crime ; protection of contracts and property, etc.

(b) INTERNATIONAL LAW. Persons concerned, rights and duties of state, territorial jurisdiction, jurisdiction on high seas, agents of the state nationality, treaties, settlement of disputes, war and its effects, military occupation, hostilities, neutrality, contraband, blockade, etc.

Elective to juniors and seniors in Commerce. Three hours a week throughout the year.

4. COMPARATIVE STUDY OF GOVERNMENTS. A comparative study of the various systems of government ; Greece, Rome, Great Britain, Germany, France, Switzerland, United States, etc. Required of seniors in the Commercial Course. Three hours a week during the second term.

## ACCOUNTING AND ADMINISTRATION.

1. (a) THEORY OF ACCOUNTS. The law of debit and credit, illustrated by correspondence with offices; practice in ruling, checking, construction of balance sheets; practice in letter writing, making out bills, invoices, receipts, bills of lading, legal forms, etc.

(b) COMMERCIAL ARITHMETIC. In connection with the Theory of Accounts much stress will be laid on rapid method of commercial calculations. Short methods, not usually emphasized in the regular courses, in the fundamental operations, interest, discount, etc., will receive special attention.

Required of all first year students in Commerce. Five hours a week throughout the year. Four credits.

2. PRACTICAL ACCOUNTING AND BUSINESS PRACTICE. A thorough and complete course in all the essentials of accounting as practiced in modern business houses. Great stress will be laid on correspondence and the construction of legal and commercial papers. Five budgets must be prepared by each student during each term. A portion of each period will be devoted to rapid calculation. Inter-communication business is carried on between fellow-students and commercial schools in the leading lines of business, affording excellent drill in correspondence and office practice. Given in the second year of the Commercial Course. Two hours daily throughout the year. Four credits.

3. ADVANCED ACCOUNTING AND BUSINESS MANAGEMENT.

(a) Corporation accounting and auditing. A practical application of previous courses in accounting as applied to corporation accounting. Manufacturing, railroading, and merchandising receive special attention.

(b) A thorough study of bank accounting and auditing. Various systems are studied and compared. Office practice and inter-communication work similar to that described under Accounting 2 form a part of this course. The college maintains

completely equipped offices in banking, transportation, real estate, brokerage, commission, retailing, and wholesaling. When all the theoretical work and the business practice is completed, the student is placed as manager of one of these offices and is held responsible for all its operations. Each student must pass through at least three offices during the year. Five budgets similar to those described under Accounting 2 are required each term.

Given in the third year of the Commercial Course. Two hours daily. Four credits.

4. PUBLIC ACCOUNTING AND ADMINISTRATION. This is a research course under the direction of the professor in charge. Special stress will be laid upon preparation for the Certified Public Accountancy examinations. The course embraces the following subjects:

(a) A general course in analyzing accounts of various typical corporations.

(b) The organization of individual business, corporations, and bodies politic.

(c) Higher commercial mathematics.

Elective to juniors in Commerce. Four credits. See regulation regarding thesis.

#### STENOGRAPHY.

1. STENOGRAPHY I. This is an elementary course in the Gregg system of Shorthand. The system is adapted perfectly to the hand, and enables the students to master the principles in a short time and to begin work from actual dictation early in the course. The dictation covers business correspondence in various branches. Optional with Accounting 2 to second year students in the Commercial Course. Five hours a week throughout the year. Four hours credit.

3. STENOGRAPHY II. After a thorough review of the text books, various forms of correspondence, legal documents, speeches, specifications, editorial matter, court testimony, etc.,

are taken up. This course is designed especially for students who desire to qualify for the United States Civil Service, or for reporting work. A study of public meetings, court procedure, and reporting of public meetings and trials in Logan and vicinity. Much transcribing on the typewriter. Optional with Accounting 3 to third year Commercial students. Five hours a week throughout the year. Four hours credit.

### 3. STENOGRAPHY *III*.

(a) Reports of Lectures. The student will be required to submit not less than twenty verbatim reports of lectures and addresses during the year, properly transcribed.

(b) Court Reporting. The student will be required to spend a large share of his time in the county court room during the session of the court, and to render at least twenty verbatim reports, properly transcribed. In addition, a large amount of legal procedure will be required.

The finished work of the entire course must be passed on by the School Committee. Elective to juniors in Commerce who have completed Stenography II. Four credits.

### TYPEWRITING.

I. TYPEWRITING I. Beginning with simple exercises, the student learns correct fingering with other manipulation of the typewriter. Special attention is given to proper care and mechanism of the machine. Optional with Penmanship to first year students in the Commercial Course. One hour a week with much practice between recitations. One hour credit.

2. TYPEWRITING II .A special course for those taking Stenography. In addition to the elementary principles given in Typewriting I, students make copies of correctly written correspondence, legal forms, etc.; also personal composition and dictation. As soon as a moderate speed is attained, the work includes transcription of shorthand notes. One hour daily throughout the year. Two hours credit.



## PENMANSHIP.

1. This course aims to develop a practical handwriting. Much stress is laid on movement, position of hand and body, etc. Beginning with easy movement drills, the student is led into more difficult exercises, completing with words and short sentences. Designed for first year students in the Manual Training Course, and for Winter course students. Daily. Two hours credit.

2. A somewhat advanced course designed especially for Commercial students who have the principles of Course 1 well grounded. Commercial correspondence is made a special feature. Artistic writing, lettering, and engrossing receive attention. One hour credit. Optional with typewriting.

## SPECIAL LECTURES.

A series of about ten lectures on practical business subjects will be given during the year by prominent business men throughout the state. All Commercial students are expected to attend these lectures.

## ELECTIVES, 1907-1908.

The following Commercial electives will be offered to juniors and seniors during 1907-08:

*To Juniors:*

Accounting and Administration 4, four credits.

Economics 3, four credits.

Trade and Transportation 2, four credits.

Stenography 3, four credits.

*To Seniors:*

Banking and Finance 2, five credits.

Political Science 3, five credits.

Production and Manufacture 2, five credits.

Economics 4, five credits.

## THESES.

A thesis will be required in each of the above elective courses. The subject of the thesis must be announced by the School Committee to the College Council during the first term, and a finished copy must be in the hands of the professor in charge not later than May 1.

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## MECHANIC ARTS

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PROFESSOR JENSEN,  
PROFESSOR McLAUGHLIN,  
MR. HANSEN,  
MR. PULLEY,  
MR. NEWBY,  
MR. THATCHER,  
MR. FREW,  
MR. MADSEN.

### *I. Technology.*

1. The properties and characteristics of the materials used in construction; its preparation for use; tests of the strength and quality of materials; their preservation, etc. In addition to the usual tests of materials, tests are made of chains and welded bars of iron, of the force required to drive various kinds of nails, of the holding power of nails and screws, etc.

Required of fourth year Mechanic Arts students. Three hours credit.

### *II. Mechanical Drawing.*

1. (a) MECHANICAL DRAWING. This course consists of a thorough drill in the elementary principles of projection, including linear perspective and the more common conventions of mechanical drawing. Required third year Manual Training Course in Mechanic Arts. Prerequisite, Drawing 1, 2 or 3. Nine hours a week throughout the year. Three hours credit.

(b) **DESCRIPTIVE GEOMETRY.** The representation of problems, and the solution of problems relating to geometrical magnitudes in space, including orthographic projections and development; projections of plane and solid intersections; shades and shadows; and applications to stereotomy, sheet-metal work, and other structural problems. Six hours a week throughout the year. Two hours credit.

(c) **DRAWING AND DESIGN.** The work is adapted to the line of shop work which the student is pursuing. It is intended to give practice in design with consideration of proper proportion for strength as well as for aesthetic qualities. In this course the student is expected to make his own designs for his work in the shops. Required of fourth year Manual Training Course in Mechanic Arts. Prerequisite, Drawing 2 and Mechanical Drawing (a). Nine hours a week throughout the year. Three hours credit.

### *III. Carpentry.*

1. (a) Rudimentary exercises in sawing, ripping, planing, mortising, dovetailing, and general joinery, and the application of these to simple articles of furniture. Correct methods of using and handling tools are emphasized. Open to first year Manual Training Course in Mechanic Arts. Fifteen hours a week during the first term. Five hours credit.

(b) Sharpening and adjusting carpenter's tools, and saw filing, followed by practice in making panels, doors, and sashes, and in simple cabinet work.

Open to first year Manual Training Course in Mechanic Arts. Fifteen hours a week during the second term. Five hours credit.

2. (a) Plain cabinet making, concluding with a model carpenter's work bench. First term.

(b) Wood turning and other machine work in wood, and the construction of a standard carpenter's tool chest. Second term.

Open to second year Manual Training Course in Mechanic Arts. Prerequisite, Course 1 (b). Fifteen hours a week throughout the year. Five hours credit.

3. The principles and practice gained in the foregoing courses are applied to frame house building. If possible, practice in building a regular house is given, but when such opportunity cannot be had, special parts, such as a section of wall, including doors and windows, hips and valleys in roofs, etc., are built in the shops. Open to third year students in the Manual Training Course in Mechanic Arts who have completed Course 1 (b), and, preferably, Course 2 (a). Fifteen hours a week throughout the year. Five hours credit.

4. The student is allowed to specialize in cabinet making, including carving, fitting and finishing, or in inside finishing of houses, or in special work in stair building. In whichever branch he may specialize, he is required to finish a complete design. Open to fourth year students in the Manual Training Course in Mechanic Arts who have completed Course 2. Fifteen hours a week throughout the year. Five hours credit.

5. Selected exercises from Courses 1 (a) and 2 (b). Required in second year College Preparatory Course and first year Agriculture. Six hours a week during the first term. Two hours credit.

#### *IV. Forging and Carriage Building.*

1. (a) Preliminary exercises, such as drawing, bending, twisting, and shaping, followed by exercises in iron welding and making iron tools. Accuracy in methods and results is insisted upon. First term.

(b) Practice in steel and iron welds, steel and steel welds, and general work in steel forging and dressing. Chisels, punches, reamers, hammers, tin shears, nippers, etc., are sample exercises. Second term. Prerequisite, Course 1 (a).

Open to first year Manual Training Course in Mechanic Arts. Fifteen hours a week throughout the year. Five hours credit.



2. (a) Elementary work in horseshoeing and spring building, and in making and repairing different kinds of agricultural and other implements. First term.

(b) Filing, chipping, hand fitting, polishing, and general vise work; also special forms of forging, such as wicket gates, cultivator teeth, andirons, etc. Second term.

Open to second year Manual Training Course in Mechanic Arts. Prerequisite, Course 1. Fifteen hours a week throughout the year. Five hours credit.

3. Practice carriage building and advanced forging. Open to fourth year students in the Manual Training Course in Mechanic Arts. Prerequisite, Course 2. Fifteen hours a week throughout the year. Five hours credit.

4. (a) Selected exercises from Course 1. Required of second year College Preparatory Course. Six hours a week throughout the second term. Two hours credit.

(b) Selected exercises from Course 1 (a), followed by work in horseshoeing and in repairing agricultural implements. Required of first year Agricultural Course. Six hours a week during the second term. Two hours credit.

#### *V. Machine Work.*

1. (a) Special work in chipping, filing, scraping and hand fitting, including work in dressing and tempering machine cutters. First term.

(b) Preliminary exercises in straight and taper turning, drilling and planing are given, accompanied by instruction in the care and use of machinery. Second term.

Open to first year Manual Training Course in Mechanic Arts. Fifteen hours a week throughout the year. Five hours credit.

2. (a) Exercises in boring and chucking in the lathe, thread cutting, polishing and milling shaft couplings, tap wrenches and gear wheels are sample exercises. First term.

(b) The manufacture of parts of machinery, such as eccentrics, engine connecting rods, and cranks. Second term.

Open to second year Manual Training Course in Mechanic Arts. Prerequisite, Course 1. Fifteen hours a week throughout the year. Five hours credit.

3. (a) The work of this course is principally that of making mandrels, taps, spiral drills, counter bores and the grinding machine. First term.

(b) Practice in making fluted reamers, grinding and making milling cutters, special attention being paid to the forms of the cutting edges. Second term.

Open to third year Manual Training Course in Mechanic Arts. Prerequisite, Course 2. Time and credit same as for Course 1.

4. Actual machine construction, factory methods being emphasized. Speed lathes and sensitive drills may be taken as sample exercises. Open to fourth year Manual Training Course in Mechanic Arts. Prerequisite, Course 3. Time and credit same as for Course 1.

## *VI. Foundry Work.*

1. Thorough practice in moulding and general foundry work, including iron and brass casting. The patterns chosen illustrate a wide range of work, the course being intended to give a general knowledge of foundry practice. Elective. Six hours a week during the first term. Two hours credit.

2. Special moulding, emphasizing such work as will be required in connection with the work of machine design. Elective. Six hours a week during the second term. Two hours credit.

## *VII. Sloyd.*

Intended primarily for younger students who are not sufficiently developed physically to carry the heavier work of the regular Mechanic Arts courses. It is also well adapted for teach-

ers who desire to qualify themselves for teaching Sloyd in the district schools. The best Swedish and American methods are followed.

1. (a) Simple household and school-room articles, such as pointers, bread-boards, clothes-horses, foot-stools, scoops, etc., constitute the exercises of this course. Elective. Four hours a week during the first term. Two hours credit.

(b) Elementary turning and scrolling, simple carving, and the completion of a small cabinet. Elective to students who have completed 1 (a). Four hours a week during the second term. Two hours credit.

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## CHEMISTRY

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PROFESSOR WIDTSOE.

ASSISTANT PROFESSOR STEWART.

MR. GREAVES.

MR. PORTER.

MR. HARRIS.

### I. GENERAL CHEMISTRY.

(a) *Elementary Chemistry*. The important facts and fundamental theories of chemistry, and the application of chemistry in the arts and manufactures. The laws of chemical combination, the writing of reactions, and solving of stoichiometrical problems are given special, careful consideration. Students taking the course must also take Course 1 (b) and 1 (c).

(b) *Elementary Practical Chemistry*. Supplements Chemistry 1, and furnishes the necessary practical preparation for qualitative analysis. The non-metallic elements, mainly, are studied with reference to their combinations with each other; their reactions are verified and the facts and theories of the lecture room are tested by experiments.

(c) *Qualitative Analysis*. Parallel with and supplement-

ing the descriptive study of the metals and their compounds. Under the direction of the instructor, the students apply the reagents necessary to determine the composition and properties of chemical compounds. Each student is required to analyze and report on a number of unknown substances. This work is extremely important from an educational as well as from a practical point of view.

Required of sophomores in the Commercial Course, third year students in the High School Course in Agriculture and of Freshmen in all other College Courses. Nine hours a week throughout the year. Five hours credit.

2. ORGANIC CHEMISTRY. This course embraces: (a) a brief survey of the more important reactions and compounds of the fatty and aromatic series of hydrocarbons and their derivatives, together with a full discussion of the nature and influence of molecular structure; (b) the preparation of a number of organic compounds to illustrate the methods of work of the organic laboratory. Required of juniors in the Domestic Science Course. Prerequisite: Chemistry 1. Six hours a week throughout the year. Four hours credit.

3. AGRICULTURAL CHEMISTRY. Lectures and assigned readings on the chemical problems of agriculture. The aim being to make the student familiar with our present knowledge of the composition of plants; the essential composition of plant foods, the changes through which they pass and their role in plant economy; the composition of animals; the principles of animal nutrition and the chemical nature of waters, dairy products, etc. Prerequisite, Chemistry 1. Required of sophomores in all the Agricultural Courses. Three hours throughout the year.

4. CHEMISTRY OF FOODS AND COOKERY. Foods and methods of cooking are studied experimentally, with especial reference to human nutrition. The common foods, both animal and vegetable, are separated by physical and chemical means into their constituents, after which the effects of different methods of cooking



are investigated. Wine, beer, tea, coffee, milk, and other drinks are also examined, and separated into their constituent parts. Spices and condiments are studied with the especial object of learning simple methods for the detection of the common adulterants. Some attention is also given to the effect of different kinds of heating apparatus upon the chemical changes that take place during cooking. Required of juniors in the Domestic Science Course; elective to others. Prerequisite, Chemistry 1 and 2. Nine hours a week throughout the year. Three hours credit.

5. CHEMISTRY OF THE SOIL. A study is made of the methods of analysis of soils and the interpretation of the results; physico-chemical investigations of soils in their relations to crop production; soils of the arid and humid regions; alkali soils, their nature and composition; utilization and reclamation of alkali lands; soil fertility and methods of maintenance; influence of irrigation upon the production of nitrates, fixation of potash and phosphoric acid. Considerable stress is laid upon the value, composition and preservation of barn-yard manure. Prerequisite, Chemistry 1 and 3. Three hours during the second term. Required in all Agricultural Courses.

6. ANALYSIS OF FOODS AND FEEDING STUFFS. Various farm products used for food are analyzed to determine quantitatively the different constituents, as proteids, carbohydrates, fats, crude fibre, etc. In this work the Methods of Analysis adopted by the Association of Official Agricultural Chemists are in the main followed. Besides this work numerous exercises in the detection of adulterants are carried out. Prerequisites, Chemistry 1 and 3. Three hours throughout the year. Required in Courses in Agronomy, Animal Husbandry and Dairying.

7. PHYSIOLOGICAL CHEMISTRY. In this course the student considers the chemical changes going on in the living animal body; the essential composition of foods and the changes through which they pass in the animal economy; the chemistry of secre-

tion and excretion; the chemistry of protoplasm and the chemistry of the blood, etc. Required of sophomores in Veterinary Course. Prerequisite, Chemistry 1 and 2. Three hours during the second term.

8. ELEMENTARY PHYSICAL CHEMISTRY. Lectures and recitations on some of the fundamental laws and theories of chemistry, including atomic theory, kinetic theory of gases, Avogadro's hypothesis, relation of gaseous, liquid, and solid states, solution pressure and vapor pressure, osmotic pressure, thermo-chemical relations, electrolytic dissociation, chemical equilibrium, law of mass action, isomerism and isomorphism, etc. Elective. Prerequisites, Chemistry 1 and 2. It is desirable to have completed Chemistry 5 also before taking this course. Three hours a week during the first term.

9. INDUSTRIAL CHEMISTRY. Lectures and assigned reading on special chemical industries; e. g., the manufacture of sulphuric acid and soda, commercial fertilizers, lime and cements, glass and porcelain, pigments, sugar, starch, alcohol, soap, explosives, etc. It is not proposed in this course to deal exhaustively with many industries, but with a few industries for illustration, to enable the students to get an idea as to what is required of a chemist or a superintendent of a factory, and to give him some drill in searching out the best and most profitable methods of conducting any chemical industry. Elective. See Chemistry 8 and 9 for the time and the prerequisites of this course.

10. QUANTITATIVE ANALYSIS. This is mainly a laboratory course, giving the student practice in the typical methods of proximate and ultimate quantitative chemical analysis. It aims also to give, in familiar talks, a due appreciation of the importance of accuracy in chemical work, and of the relation of quantitative analysis to theoretical chemistry. After the necessary introductory practice, samples of waters, soils, ores, agricultural products, and foods are analyzed and reported upon. The work of the Experiment Station chemical laboratory furnishes a good opportu-

nity for the study of methods of analysis. Elective to those who have completed Course 1.

11. ADVANCED QUALITATIVE ANALYSIS. This is a laboratory course, supplementary to the brief course 1 (a) in Qualitative Analysis, and is recommended to those General Science students who specialize in Chemistry. Elective. Prerequisite, Chemistry 1. Three hours a week during the first or second term.

12. RESEARCH WORK. The laboratories of the College and the Experiment Station are open to students with the necessary preparation, who desire to pursue special independent studies in the domain of chemistry. The researches carried on by the chemical department of the Experiment Station are of great aid to students who are engaged in the solution of scientific problems. Elective to those who have completed Courses 2 and 5.

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## ZOOLOGY

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PROFESSOR BALL.

ASSOCIATE PROFESSOR TITUS.

ASSISTANT PROFESSOR PETERSON.

MR. HORTON.

1. ELEMENTARY ANATOMY AND PHYSIOLOGY. The structure and function of the different parts of the human body are carefully considered, special attention being given to the principles that underlie the care of the body. Dietary studies, ventilation, exercise, use of medicines, and other hygienic topics are treated in special lectures. In the laboratory the students first become familiar with the human skeleton and then work out the fundamental unity of the vertebrate plan through a comparison of a series of skeletons. During the second term they take up the microscopic study of tissues and examine fresh material from the butcher's shop. Martin's *Human Body*. Required of all second year students, except in the Manual Training Course in Mechanic

Arts, of third year students in this course. Two recitations and two hours laboratory a week throughout the year. Two hours credit.

2. GENERAL ZOOLOGY. Required of freshmen in the Agricultural Course, of sophomores in the Domestic Science Course and of students in the General Science Course. Two lectures and three hours laboratory a week throughout the year. Three hours credit.

(a) *Invertebrate Zoology*. In each group of the invertebrates a typical example is taken up in detail, and from this, as a basis, the related forms are considered and correctly associated. In the laboratory, representative examples of each group are studied and dissected. Special attention is given to Protozoa, Hydra, Spongilla, and other fresh water forms. First term. Thompson's *Outlines of Zoology*.

(b) *Vertebrate Zoology*. A detailed study of the different groups of the vertebrates, special attention being given to their origin and development. In the laboratory, typical examples of the lower groups are dissected and the remainder of the time is spent in a systematic study of the birds and mammals of Utah. Second term.

3. BIOLOGY. Lectures on the distribution of animals, environment, struggle for existence, natural selection, mimicry, protective coloration, and kindred subjects connected with evolution. Elective to those who have completed Course 2. Two lectures a week throughout the year.

4. ADVANCED PHYSIOLOGY. The subjects discussed are: the phenomena of life; the physiology of the cell; chemical composition of the body; the physiology of nutrition; irritability and contractility; physiology of the circulation; physiology of the nervous system and sense organs. The laboratory work is an introduction to experimental physiology. Elective to those who have completed Course 2, and Chemistry 1. Three hours a week (lectures, conferences, and laboratory work) during the second term.



5. HISTOLOGY. A minute study of the elementary tissues, excepting the nervous system. A typical mammal is used for material. Prepared slides of human tissues are furnished the student. The course includes methods of fixing, decalcifying, staining, imbedding, sectioning, mounting and drawing. Elective to seniors in the Agricultural Course, and to others who have completed Course 2. Three hours a week during the first term.

6. EMBRYOLOGY. The general principles of development are discussed, beginning with the cell and taking up the development of the gastrula in the different classes of the vertebrates. In the laboratory the student will trace the development of *Ascaris*, the frog, chick, and rabbit. Elective to seniors in the Agricultural Course, and to others who have completed Course 2. Three hours a week during the second term.

7. ADVANCED VERTEBRATE ZOOLOGY. In this course the student will take up the comparative anatomy of the higher vertebrates and will become familiar with the classification of the more common forms of the amphibians, reptiles, birds, and mammals of the Intermountain region. One recitation and three hours laboratory a week during the first term. Two hours credit.

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## BACTERIOLOGY

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PROFESSOR FREDERICK.

1. GENERAL BACTERIOLOGY. This course comprises a study of the history, morphology and classification of bacteria, especially of the common disease germs, methods of preparing culture media, obtaining pure cultures, sterilization, mounting, staining and inoculation. Special attention is given to sanitation and prevention of contagious diseases. Yeasts and molds are studied, and air, water and soil examined. Nitrifying organisms and the relation of bacteria to soil fertility are discussed. Required of juniors in Domestic Science and Agriculture, and of sophomores in Veterinary Science; elective to others. One lecture and two laboratory periods per week. Three hours credit.

## BOTANY

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PROFESSOR NORTHROP.

1. GENERAL BOTANY. This course is designed to meet the needs of those students who are intending to make agriculture in some of its branches their life work. The points which touch the farmer's life work and therefore are essential to him to understand his environment, will be brought out, together with a brief study of the systematic, morphological and ecological aspects of plants. The course runs through the year and is required of all high school students in agriculture. One recitation and one laboratory period a week.

2. SYSTEMATIC AND MORPHOLOGICAL BOTANY. The aim in this course is to make the students familiar with the higher plants and the terms used in their description and classification. Gray and Coulter's *Textbook of Western Botany* is used as a guide. Two class periods and one laboratory period per week during the spring term.

3. HISTOLOGY. Course 1 or 2 is prerequisite. A study of plant anatomy, protoplasm, the cell and various tissues. Two laboratory periods per week with one recitation give the student an opportunity to become familiar with the structure of the higher plants. Required of all agricultural students in the first term of sophomore year.

4. PLANT PHYSIOLOGY. Courses 1 or 2, and 3 are prerequisites. The functions of growth, such as the absorption and use of food, movement of water in the plant, respiration, reproduction, changes of color and the effect of gases, changes of temperature, etc., on the life of plants will be studied. Some of the lower forms of plant life will also receive attention. Required of sophomores in Agriculture, second term. Two laboratory periods and one recitation.

5. PLANT PATHOLOGY. A study of some of the forms of parasitic plants common to this western country will be required

of seniors in Horticulture and Agronomy during the second term. Three hours, one lecture and two laboratory periods, each week.

*Advanced Elective Courses.*

Courses 1 or 2, 3 and 4, prerequisites. Time to be arranged in all cases.

6. ECONOMIC BOTANY. A study of useful plants and plant products. This course will be presented by lectures and assigned readings upon which reports are to be given. Two hours credit.

7. ECOLOGY. A study of plant relations and adaptation to particular environment. This course consists largely of field work. Reports of investigations are required. Two hours credit.

8. CYTOLOGY. A study of plant cells and their contents from the biological standpoint. Three hours credit.

Courses in Systematic Botany can be arranged as follows.

9. ALGAE AND FUNGI. One lecture and two to four laboratory periods per week. Credit according to work done.

10. MOSSES AND FERNS. (As in Course 9 above.)

11. SEED PLANTS. Lectures and field work with herbarium, particular attention being given either one or all of the following groups. Credit according to work done:

(a) Gymnosperms.

(b) Exogens.

(c) Endogens.

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## GEOLOGY

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PROFESSOR PETERSON.

1. PHYSIOGRAPHY. Intended to develop observation, and give an appreciative knowledge of nature's work in and about the earth. The subjects studied will include: the earth in space, the structure of the earth, land forms, erosions, lakes and lake

basins, glaciation, the sea and its work, the atmosphere and the effect of physiographic conditions on the distribution and character of life. An effort will also be made to give each student some knowledge of the common rocks. Optional in the second year of the College Preparatory Course. Two hours a week throughout the year.

2. GENERAL GEOLOGY. Intended to familiarize the student with the physiographic changes now in progress and the agencies which produce them, with the origin and structure of the various materials composing the earth's crust, and with the chronological succession of the great formations. A careful study of the development of the North American continent from the earliest time will comprise most of the second term's work. Enough field practice is given to introduce the methods by which the geological phenomena of a given area may be interpreted. Leconte's *Elements of Geology*, fifth edition, will be used as the text book. Required of seniors in the Agricultural and Domestic Science Courses; elective to others. Three hours a week throughout the year.

3. ECONOMIC GEOLOGY. The object is to give the student some idea of the mineral resources of the United States. The work will include a careful study of the processes of preparation, and economic value of coal, petroleum, natural gas, asphaltum, building stones, cements, soils, clays, mineral fertilizers, mineral water, fuller's earth, lithographic stone, precious stones, etc. Much of the information will be taken from the Reports of the United States Geological Survey. Elective to students who have completed course 2 and Chemistry 1. Two hours a week throughout the year.

4. MINERALOGY. A systematic study of the common minerals as outlined in Dana's Manual. The student is furnished with excellent specimens of all the minerals studied, for both tests and comparisons. The course is essentially individual laboratory work in blow pipe analysis and determinative mineral-



ogy. Elective to those who have completed Chemistry 1. Two hours a week during the year.

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## PHYSICS

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PROFESSOR PETERSON.

1. ELEMENTARY PHYSICS. The object of this course is to give every student a practical acquaintance with laboratory methods of work, and with the elementary facts and laws which are the foundation of the science. The lectures are illustrated by experiments performed by the instructor, and many problems are worked in and out of class. The laboratory work consists of numerous experiments, chiefly quantitative, performed by each student. Carhart and Chute's *High School Physics*; Snyder and Palmer's *One Thousand Problems in Physics*. Required of all sophomores. Two recitations and one laboratory period each week throughout the year. Three hours credit.

2. GENERAL PHYSICS. A more advanced course than Physics 1. Stress is laid on the subjects of mechanics, heat, and electricity. *General Physics*, Hasting and Beach. Four hours a week throughout the year. Three hours credit.

3. DIRECT CURRENTS AND MAGNETIC MEASUREMENTS. This course is primarily intended for students specializing in electrical science, but may be taken by others who have the necessary preparation. Most of the work will be in the laboratory, lectures being given from time to time as required. The laboratory work consists of accurate measurements of current strength, resistance, electromotive force, mutual induction, and the magnetic properties of iron. Two hours a week throughout the year.

## MATHEMATICS

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PROFESSOR LANGTON.

MR. RUDOLPH.

MR COBURN.

1. ARITHMETIC. A thorough treatment of elementary arithmetic. Required of students not graduated from the district schools, who are admitted to the Manual Training Courses. Five hours a week throughout the year. Two sections.

2. ARITHMETIC AND ALGEBRA.

(a) *Advanced Arithmetic*. Special attention is given to the nature, origin and development of number. The class recitation hour is devoted to thorough consideration of the fundamental processes of arithmetic, including contracted methods of multiplication and division, common and decimal fractions, factors and multiples, mensuration, the metric system of weights and measures, square and cube root, proportion, percentage and interest, and practical problems. First term.

(b) *Algebra*. A thorough treatment of the fundamental operations, use of parentheses, factoring, highest common factor, lowest common multiple, fractions, and simple equations. Second term.

Required of all first year students. Five hours a week throughout the year. Five sections. One section will give special attention to Commercial Arithmetic.

3. ALGEBRA, GEOMETRY.

(a) *Higher Algebra*. After a brief review of the subjects treated in Course 2 (b), the following subjects are considered: simple equations, inequalities, involution and evolution, theory of exponents, radicals, quadratic equations, ratio and proportion, progressions, and binominal theorem. *New Complete Algebra*—Wells. First term.

(b) *Plane Geometry*. The general properties of polygons; problems of construction, and determination of areas; regular

polygons and circles, with problems in construction, and methods of determining the ratio of the circumference to the diameter; and maxima and minima. Special attention will be given to the development of the power of logical thinking, and of accuracy and conciseness of expression. *The Essentials of Geometry*—Wells. Second term.

Required of second year students in all courses except the Manual Training Course in Domestic Arts. Five hours a week throughout the year. Three sections.

4. GEOMETRY, ALGEBRA, TRIGONOMETRY.

(a) *Solid Geometry*. Wells' *Geometry*. First third of year.

(b) *Advanced Algebra*. A continuation of Course 3 (a); includes a thorough drill in the most important principles of higher algebra. Second third of year.

(c) *Trigonometry*. The deduction of general trigonometric formulæ, the solution of plane and spherical triangles, and practice in the use of logarithmic tables. Lyman and Goddard's *Trigonometry*. Last third of year.

Required of freshmen in all courses. Five hours a week throughout the year.

5. ANALYTIC GEOMETRY, CALCULUS.

(a) *Analytic Geometry*. The analytic geometry of the straight line, the circle, and the conic sections, including a discussion of the general equations of the second degree, and some special examples in transcendental and higher plane curves.

(b) *Differential Calculus*. The development of the fundamental principles and formulæ of the differential calculus; applications to various problems in plane geometry and analysis, such as indeterminate forms, maxima and minima, curvature, expansions of functions in series, evolutes and involutes, and curve tracing.

(c) *Integral Calculus*. Integration of various forms; development of the formulæ of the integral calculus; application in

rectification of curves, quadrature of plans and curved surfaces, cubature of volumes, etc.

Elective to students who have completed Course 4. Five hours a week throughout the year.

6. MODERN GEOMETRY. This course treats the most important theorems and examples connected with harmonics, anharmonics, involution, projection (including homology) and reciprocation. Cremona's *Projective Geometry*; Russell's *Treatise on Pure Geometry*; Lachlan's *Modern Pure Geometry*. Elective to those who have completed Course 5. Five hours a week throughout the year.

7. DIFFERENTIAL AND INTEGRAL CALCULUS, ADVANCED COURSE. This course embraces the elements of the theory of functions of imaginary variables; the various methods of integration systematically treated; the elements of the theory of the elliptic functions; the mechanical and geometrical applications of the calculus treated more fully than in Course 5; and some of the more important cases of differential equations. Todhunter's *Differential Calculus* and Williamson's *Integral Calculus*. Elective to students who have completed Course 5. Five hours a week throughout the year.

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## ENGLISH

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PROFESSOR LARSEN.

MR. CAINE.

MRS. MAYCOCK.

MISS HUNTSMAN.

MR. PETERSON.

MISS KYLE.

The English department offers regular courses of secondary and college grade. All of the former work is prescribed, most of the latter is elective. Two courses are offered for students below High School grade. In all courses in English Com-



position the "laboratory method" is largely followed, and abundant provision is made for private conferences between each student and his instructors. The study of literature is made a part of every course in English Composition, and practice in composition forms a part of all the courses in English Literature.

1. GRAMMAR AND COMPOSITION I. A course in general elementary grammar, with special stress placed on the correction of common errors of speech. Brief compositions, based in part on the student's personal experience and observation, but chiefly on the prescribed home reading, are called for at frequent intervals.

Required of students not graduated from the public schools, who are admitted to the Manual Training Courses. Five hours a week throughout the year.

2. READING, SPELLING AND COMPOSITION. A course in oral expression and interpretation, in which particular attention is given to orthography, to acquiring a vocabulary and to the use of the dictionary. Written summaries and paraphrases are required, and many passages are memorized. A number of simple classics are read and discussed in class, others are assigned for home reading.

Required of students, not graduated from the public schools, who are admitted to the Manual Training Courses. Five hours a week throughout the year.

3. GRAMMAR AND COMPOSITION II. English 3 and 4 are complementary courses and should be taken together. English 3 consists of an exhaustive study of the principles of English syntax, supplemented by review exercises on the parts of speech. Brief compositions, based mainly on the student's work in English 4, are required at least once a week. These themes afford practice in grammatical correctness, and freedom of expression.

Required of all first year students. Three hours a week throughout the year.

4. **ENGLISH CLASSICS.** Work in oral expression, appreciation and composition, under the immediate charge of the instructors in elocution. The reading in this course is correlated with the composition work in English 3, and the two courses should therefore be taken together. Many passages of poetry are memorized, and attention is constantly directed to the elementary principles of style. The correct and frequent use of the dictionary is an important part of the work. The classics read are those selected for college entrance requirements, and the work in class is supplemented by a considerable amount of prescribed home reading.

Required of all first year students. Two hours a week throughout the year.

5. **ENGLISH COMPOSITION.** Class room discussions of the principles of rhetoric, oral and written compositions, assigned readings, and conferences. It is intended to make this an extremely practical course in the writing of English. To this end a large amount of oral and written composition is required; during part of the year daily, one-page themes are prepared, and longer fortnightly themes are written throughout the year. Each student has regular conference periods at frequent intervals, for the purpose of discussing his written work with the instructor. The compositions are often rewritten, and frequently a theme is written in class. A certain amount of prescribed reading furnishes material for themes and class-room discussion, and supplies a number of prescribed memory passages.

Required of all second year students. Five hours a week throughout the year.

6. **ENGLISH LITERATURE.** History and development of English Literature in outline, from the Anglo-Saxon period to the present day.

This course is the only prescribed course in English Literature. It aims to give every student who is graduated a general knowledge of the progress and growth of literature in England.

All the important authors are studied at considerable length, not only in relation to the great literary movements, but also in relation to the historical background. The work is carried on partly by lectures, partly by recitations. A great deal of prescribed reading furnishes material for class-room discussions and written reports, thus giving the students constant practice in composition.

Required of all freshmen and third year students. Three hours a week throughout the year.

7. ADVANCED RHETORIC AND COMPOSITION. Lectures, recitations, assigned readings, themes, and conferences. As the name indicates, this is intended to be a comprehensive course in College Rhetoric. Special attention is given to the forms of prose discourse. Lectures and recitations, together with class room discussions of the written work, bring out the principles of rhetoric. The practical work consist of oral compositions, and short daily and longer fortnightly themes, all of which are criticized in detail by the professor in charge. After due personal consultation with the student, the themes are frequently rewritten. Regular conference periods are arranged for each student. In addition to the composition work, and serving as an important source of material, a certain amount of reading is prescribed, largely such as might be chosen by the student for his own enjoyment.

Required of all college students in the sophomore or junior year. Three hours a week throughout the year.

8. THE ELIZABETHAN DRAMA. A study in the development of the drama in England. Incidentally the origin of the drama and the principles of dramatic technique will be considered. Lectures, prescribed readings and reports. Elective to juniors and seniors. Three hours a week, throughout the year.

9. THE ROMANTIC MOVEMENT. A study of the rise and spread of romanticism in the English literature of the eighteenth and nineteenth centuries. Foreign parallels and influences are carefully noted. Elective to juniors and seniors. Two hours a week throughout the year.

10. SHAKSPERE. A course in careful detail study, covering five or six representative plays of Shakspeare. Elective to juniors and seniors. Three hours a week throughout the year.

11. LITERARY CRITICISM. A study of the literary principles underlying the various kinds of poetry, fiction and other forms of prose literature. In connection with poetry, a study of English versification is made. Lectures, assigned readings and reports. Elective to juniors and seniors. One hour a week throughout the year.

12. AMERICAN LITERATURE. A study of the literary works produced in America from the formation of the colonies to the present time, keeping in view constantly contemporary development in England. Lectures, assigned readings and reports. Elective to juniors and seniors. Two hours a week throughout the year.

13. EUROPEAN LITERATURE. A general outline of literature in Europe from classic times to the present day. The particular aim of the course is to define clearly the relative position and importance of English literature in the whole history of European literature; incidentally the student's attention and interest will be directed to those great world literatures and literary movements so generally neglected by American college students. The course takes up various phases of medieval literature, the Renaissance, and the various modern literatures. It emphasizes the writers as well as the subjects and the influences. Lectures, much prescribed reading, and reports. Elective to juniors and seniors. Three hours a week, throughout the year.

14. ELOCUTION I. Class-room work in voice-culture, gesture, and the principles of expression. The memorizing, interpretation, and delivery of a number of selections are required. The reading includes: Arnold's *Sohrab and Rustum*; Rostand's *Cyrano de Bergerac*; Sheridan's *School for Scandal*. Elective to students who have completed English 4.

15. ELOCUTION II. Intended for those who have completed the elementary work and desire to continue under indi-



vidual instruction. The student may choose between two lines of work. One of these includes a further study of the general laws of expression and the principles of art; the cutting of short stories, novels, and plays for public reading; the interpretation and presentation of more advanced readings. Hauptmann's *Sunken Bell*, and Shakspeare's *King Lear* and *As You Like It* will be read. The other line of study is intended to prepare for public speaking. Representative English and American orations will be studied for correct delivery, and effective passages will be analyzed. Original work will be required in the toast, short speech, formal address, and debate. Special study will be made of Shakspeare's *Coriolanus* and *Julius Caesar*.

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## MODERN LANGUAGES AND LATIN

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PROFESSOR ARNOLD.

The elementary courses in this department aim to give the student an accurate knowledge of the grammar of the language studied; the ability to translate with readiness from English and into English; and the ability to understand the spoken language and to converse upon simple topics, with proper pronunciation. To attain this end the language studied is as far as possible made the language of the class room; specimens of lyric poetry are committed to memory; much practice is afforded in prose composition, both oral and written; and grammar is studied throughout the course.

The more advanced courses are intended to give the student the ability to read the language without translating, to compose in it and to obtain some speaking facility, as well as to become familiar with some of the classics and scientific works.

NOTE.—Students who intend to study only one language will find it most advantageous to take French if they are following the Domestic Science Course; Spanish, if they are following

the Commercial Course; and German, if they are doing work in Agriculture.

1. FIRST YEAR FRENCH. Fraser and Squair's *French Grammar, Part I*, Snow and Le Bon's *Easy French*, form the basis of the grammatical and conversational work. Three or four modern texts are read, such as Dumas' *Les Trois Mousquetaires*; About's *Le Roi des Montagnes* and Halevy's *L'Abbe Constantin*. Optional with German and Spanish in the Commercial Course and with German in all other courses. Five hours a week throughout the year. Three hours credit.

2. SECOND YEAR FRENCH. Francois' *French Composition* is the basis of a grammatical review and of writing in French. Lavissee's *Histoire de France* is used as subject matter for conversation, while the work in reading consists in translating works of the more important of the nineteenth century authors, such as Hugo, Balzac, Flaubert, Daudet, Anatole France, Maupassant and Loti, with one play of Dumas, fils, one of Augier and one of Pailleron. During the second half year a weekly composition in French is required. Open to those who have completed Course 1 or an equivalent. Three hours a week throughout the year.

3. THIRD YEAR FRENCH. The object of the course is a systematic study of French literature with Doumic's *Histoire de la Literature Francaise* as basis. Weekly compositions in French will be required, based on outside reading. The class work will be the reading and discussion of as many of the plays of Racine, Corneille and Moliere as possible, with lectures in French by the instructor. The course may be taken with credit two years in succession, as it will alternate with work on the nineteenth century poets. Open to those who have completed Courses 1 and 2 or an equivalent. Three hours a week throughout the year.

4. SCIENTIFIC AND HISTORICAL FRENCH. Translation of monographs on scientific subjects by recent French writers as contained in standard French scientific magazines; sight reading and rapid translation of topics from French writers on history

and economics. Open to those who have completed Courses 1 and 2 or an equivalent. Two hours a week throughout the year.

#### SPANISH.

1. FIRST YEAR SPANISH. Hill's and Ford's *Spanish Grammar*; Matzke's *First Spanish Readings*; Valdes' *Jose*; Alarcon's *El Capitan Veneno*. Optional with French or German in the Commercial Course. Five recitations a week throughout the year. Three hours credit.

2. SECOND YEAR SPANISH. Ford's *Spanish Composition*; Picatoste's *Historia de Espana* as basis for conversation; rapid reading of such modern texts as Valera's *Comendador Mendoza*; Galdos' *Dona Perfecta and Electra*; Breton's *Quien es ella?*; and one classical play. Open to those who have completed Course 1. Optional as Course 1. Three hours a week throughout the year.

#### GERMAN.

1. FIRST YEAR GERMAN. The first half year Becker's *Elements of German*, and the second half Bernhardt's *German Composition* form the basis of the grammatical and written work. The work in reading begins with Wenckebach's *Glueck Auf*, and is followed by three or four easy texts, such as Gerstaecker's *Germelshausen*, Hauff's *Das Kalte Herz*, Heyse's *L'Arrabiata* and Riehl's *Fluch der Schoenheit*. Several poems are memorized. This course is optional with French and Spanish in the Commercial Course and with French in all other College courses. Five recitations throughout the year. Three hours credit.

2. SECOND YEAR GERMAN. Bernhardt's *German Composition* is finished and work in original German composition is begun. Andrea's *Erzahlungen aus der deutschen Geschichte* is used as basis for conversation and foundation for future understanding of German literature. Many texts are rapidly read, selected from the works of Riehl, Sudermann, Wildenbruch, Freytag, Heine, and other nineteenth century authors, with one scientific text. Three hours a week throughout the year.

3. **THIRD YEAR GERMAN.** A systematic study of German literature is begun with Keller's *Bilder aus der deutschen Litteratur* as basis. As much as possible of the work of Lessing, Schiller, and Goethe is read and discussed. Open to those who have completed Courses 1 and 2 or an equivalent. Three hours a week throughout the year.

4. **SCIENTIFIC GERMAN.** The work will consist of rapid reading of scientific texts with the study of cognates, beginning with Walther's *Meereskunde* and Lassar-Cohn's *Chemie im taeglichen Leben*, and followed by monographs by Cohn, Helmoltz, Dubois-Raymond, and other German scientists. Two hours a week throughout the year. Open to those who have completed Courses 1 and 2 or an equivalent.

#### LATIN.

The following courses in Latin are offered to students in three year courses, and to students in College courses who have not presented parallel courses as entrance requirements:

1. **FIRST YEAR LATIN.** Collar and Daniell's *First Year Latin; Viri Romae*. Drill on essentials of Latin grammar; comparison with English grammar, acquiring of vocabulary; English words derived from Latin; selections for reading. Five hours a week throughout the year.

2. **SECOND YEAR LATIN.** Greenough, D'Ooge and Daniell's *Second Year Latin*; D'Ooge's *Latin Composition based on Caesar*; Bennett's *Latin Grammar*; selected readings from Part 1, *Second Year Latin*; an equivalent of four books from selections from Cæsar; oral and written composition. Attention is given to etymology of English derivatives and cognates; accuracy and facility in translation into idiomatic English; sight translation. Open to students who have completed Course 1. Five hours a week throughout the year.



## HISTORY

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PROFESSOR THOMAS.

MR. STEPHENS.

MISS KYLE.

1. GREEK AND ROMAN HISTORY. Intended chiefly as an introduction to Greek and Roman history. Thorough text-book work is required. Such reading is done as is necessary to supplement the text. It is the purpose of this work gradually to give the student a broad view of history. Greek history occupies the first term, Roman history the second. West's *Ancient World* is the text. Required of first year students in Domestic Science, Commerce, and College Preparatory courses. Three sections, three hours a week throughout the year.

2. UNITED STATES HISTORY I. A study of social life, economic conditions, political development, and historical literature. Lectures are occasionally given. Library work is required. The text is Channing's *Student's History*. Required of second year students in the Domestic Science and College Preparatory courses and third year students in Manual Training in Domestic Arts. Two sections, three hours a week throughout the year.

3. UNITED STATES HISTORY II. The history and interpretation of our national constitution, the relation of our state constitutions to the national government, governmental forms, supreme court decisions as influencing the course of our government; and a careful survey of all those features in American history necessary to intelligent citizenship. Hart's *Actual Government* is the text. Required of second year students in Agriculture, and second year students in Mechanic Arts. Three hours a week throughout the year.

4. ENGLISH HISTORY. Racial traits, constitutional growth, social life at different stages, English conservatism, colonial systems, and pauperism are some of the topics discussed. A leading aim in the course is to teach the philosophy of history concretely. Research work is an important feature. Elective to those who

have completed Course 1. Three hours a week throughout the year.

5. MODERN EUROPEAN HISTORY. A discussion of European history from Charlemagne to the present time. Among the topics discussed are: the growth of monarchies, the French Revolution, formation of the German Empire, development of the Swiss Confederation, the Napoleonic wars, etc. West's *Modern European History* is the text. Required of juniors in Commerce. Three hours a week throughout the year.

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## ART

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PROFESSOR STUTTERD.

PROFESSOR FLETCHER.

MR. POWELL.

FREE-HAND DRAWING. These courses are purely individual, and are varied to meet the needs of the line of work the student is pursuing.

(1.) ELEMENTARY DRAWING. Drawing with charcoal, pencil, and ink, in mass, and light and shade; from simple objects, casts, flowers, plants, birds, animals, etc. The Agricultural students draw from the different breeds of livestock. Study of perspective—both linear and aerial—texture, color, etc. Required of first year students in the Agricultural, College Preparatory, and Domestic Science courses and of second year students in Domestic Art. Five hours a week throughout the year. Two hours credit.

2 and 3. (a) ADVANCED DRAWING. This includes the same principles applied to higher forms. Drawing, painting and modeling from casts and life, sketching from nature—human and animal forms, and landscapes.

(b) DESIGN. Principles of art in every day things. Study of the composition of line, tone, and color applied to products of

the different crafts, as tiles, pottery ware, textiles, ceramics, wall-paper, mosaics, book covers, etc. Planning and developing of original motives and patterns by the students. Creating decorative forms and patterns by the students. Creating decorative forms from geometrical figures; selecting, conventionalizing and arranging flowers, birds, animals, and the human figure, and the study of historic design. The Domestic Science students do designing for lace work, embroideries, rugs, tablecloths, etc.; and study the principles of art applied to household decoration. Mechanic Arts students make designs for carved wood, wrought iron, stained glass, etc. Drawing 2 required of first year Mechanic Arts, nine hours per week throughout the year. Three hours credit. Drawing 3 required of third year Domestic Science. Nine hours per week, first term. Three hours credit.

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## LIBRARY WORK

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MISS SMITH.

The subject includes the study of general reference books, such as encyclopedias, dictionaries, atlases, cyclopedias of special subjects, indexes to periodicals and general literature, handbooks of information and public documents. Talks will be given on classification and cataloguing of the books in the library, explaining their arrangement on the shelves and the use of the card catalogue. Practical questions will be given to the students to be looked up in the reference books. The object of the course is to familiarize the student with the library and to teach him how to obtain information quickly. Required of freshmen in the General Science Course. Elective to others. One hour a week throughout the year.

## GEOGRAPHY

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PROFESSOR ROBINSON.

To get an intelligent conception of the natural resources of countries, the physical features receive special attention. Astronomical and geological features are presented as far as the course will permit. The principal changes that have produced the present conditions are studied, and the atmosphere and water receive attention. Map drawing and frequent reviews are features of the course. Commerce in its effect upon nations is considered, as are also the classifications of mankind, animals, and plants. Required of students not graduated from the district schools, who are admitted to the Manual Training Courses. Three hours a week throughout the year.

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## MUSIC

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PROFESSOR THATCHER.

MRS. SLOAN.

MRS. LINNARTZ.

The following courses in music are arranged with the two-fold idea of laying a sure foundation for professional work along any of the lines of the delightful art, and to fit the student for the proper application and fullest enjoyment of the beautiful classic compositions of famous composers. Theory of music as exemplified in the study of harmony, counterpoint and musical form, will be considered, and as far as possible urged upon the student in both vocal and instrumental departments. Ensemble work may be had in the quartette, choir, band, and orchestra organizations, all of which have been successfully conducted during the past year. These advantages, together with those furnished by free concerts and recitals, constitute the strongest features of a Conservatory Course and will be open to any and all students of the College.



A certificate of graduation will be given upon the completion of any of the following courses:

FOUR YEAR PIANO COURSE. Completion of regular four years' work as prescribed, together with one year of vocal and one year of harmony.

FOUR YEAR VOCAL COURSE. Completion of four years' regular prescribed work, together with two years of piano and one year of harmony.

FOUR YEAR VIOLIN OR VIOLONCELLO COURSE. Completion of four years' regular prescribed work, together with two years of piano and one year of harmony.

FOUR YEAR COMPOSITION COURSE. Regular prescribed work, together with three years on piano, violin, cello, or cornet.

#### VOICE CULTURE AND ART OF SINGING.

FIRST YEAR. Breathing, study of vowel forms, elementary vocalization, easy songs.

SECOND YEAR. Vocalization, solfegio songs.

THIRD YEAR. Vocal studies, songs, arias, solo parts in easy operas, first year harmony, piano.

FOURTH YEAR. Advanced studies, English classic songs, German and Italian songs, arias, piano, etc.

#### PIANOFORTE.

FIRST YEAR. Position, hand culture, rhythm, scales, elementary work from Gurlitt, Beyer, Czerny and others.

SECOND YEAR. Easy studies and sonatinas by Bertini, Clementi, Kuhlan, Kohler, Loeschorn, easy pieces.

THIRD YEAR. Studies by Czerny, Dorn, Hiller, Gobbaert, and Craemer, Sonatas by Mozart, Haydn and others; first year voice and singing.

FOURTH YEAR. Studies by Craemer, Kessler, Clementi, *Gradus ad Parnassum*, solo pieces by Schubert, Mendelssohn, Chopin, Raff and others; first year harmony.

ORGAN.

FIRST YEAR. A standard method, and easy studies and pieces.

SECOND YEAR. Parallels piano course; carefully selected pieces suitable for the organ.

VIOLIN.

FIRST YEAR. Part of Henning's method for violin; little solos and duets.

SECOND YEAR. Balance of Henning's method; studies by Kayser; easy solos and duets; orchestra practice, first year piano.

THIRD YEAR. Studies by Kayser and Fiorilli, more advanced pieces; orchestra; second year piano.

FOURTH YEAR. Balance studies by Fiorilli, together with Kreutzer method; advanced solos; and first year harmony.

VIOLONCELLO.

FIRST YEAR. Part of Kummer's method for Violoncello with easy pieces.

SECOND YEAR. Balance of Kummer's method; easy studies by Dotzauer; easy pieces; orchestra practice, first year piano.

THIRD YEAR. Studies by Dotzauer; pieces moderately difficult, cello parts to easy trios and quartettes; orchestra, second year piano.

FOURTH YEAR. Balance of studies by Dotzauer; pieces of more advanced grades; cello parts to trios, quartettes, etc.; orchestra, harmony.

CORNET AND OTHER BRASS INSTRUMENTS.

The course of study for these various instruments corresponds in general with that for string instruments.

MANDOLIN AND GUITAR.

FIRST TWO TERMS of ten weeks each: first, second and third position; part of a standard method, and easy pieces.

LAST TWO TERMS. Balance of method; more **advanced** work and *ensemble* playing.

#### HARMONY AND COMPOSITION.

FIRST YEAR. TEXT "Tone Relations," Goetschius; first year of piano or other instruments.

SECOND YEAR. Advanced harmony; simple counterpoint; melody writing; second year piano, violin, etc.

THIRD YEAR. Counterpoint; smaller forms; vocal and instrumental; third year piano, violin etc.

FOURTH YEAR. Large forms: instrumentation.

#### CHOIR AND GLEE CLUBS.

Time devoted to practice: five hours a week for Choir; two hours a week for Glee Clubs; either counting towards graduation.

#### BAND AND ORCHESTRA.

Five hours a week will be devoted to this work, counting towards graduation.

In addition to the foregoing, a "Choir Leader's Class" will be conducted by Director Thatcher, which (presupposing a fair knowledge of notation, keys, and intervals) will embrace the following: tone production as applied to the human voice, breathing, arrangement of choir, balance of parts, elements of time beating, reading and interpretation of small scores, and practices.

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### TUITION

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(No entrance fee will be charged special students in music.)

*For Term of Fifteen Weeks—Payable in Advance.*

VOICE.

<i>First Year.</i> Class of three, one lesson a week.....	\$ 7.50
<i>Second Year.</i> (Private Instruction),	
One lesson a week.....	15.00
<i>Advanced</i> , one lesson a week.....	22.50

PIANO.

<i>First Year.</i> Class of three; one lesson a week.....	\$ 7.50
<i>Second Year.</i> Class of three; one lesson a week.....	10.00
<i>Advanced.</i> Private instruction; one lesson a week.....	15.00
<i>Advanced.</i> Private instruction; two lessons a week.....	25.00

ORGAN.

<i>First Year.</i> Private instruction; one lesson a week.....	\$ 7.50
<i>Second Year.</i> Private instruction; one lesson a week.....	10.00

VIOLIN.

<i>First Year.</i> Class of three; one lesson a week.....	\$ 7.50
<i>Second Year.</i> Private instruction; one lesson a week.....	15.00
<i>Advanced.</i> Private instruction .....	22.50

VIOLONCELLO.

<i>Class Lessons.</i> One lesson a week.....	\$ 7.50
<i>Private Instruction.</i> One lesson a week.....	10.00

CORNET AND BAND INSTRUMENTS.

<i>Class Lessons.</i> One lesson a week.....	\$ 7.50
<i>Private Instruction.</i> One Lesson a week.....	10.00

MANDOLIN AND GUITAR.

One lesson a week.....	\$ 7.50
Two lessons a week.....	10.00

HARMONY.

Class of three; one lesson a week.....	\$ 7.50
Class of three; two lessons a week.....	10.00

CHOIR LEADER'S CLASS.

Two lessons a week.....	\$ 7.50
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## MILITARY SCIENCE AND TACTICS

COMMANDANT HOWARD R. PERRY.

Captain 29th Infantry.

All malé students of the college, except those physically disabled, are required to take the prescribed work of the Military Department, which may be completed in two years.

A uniform, must be worn by the cadets when at drill or when receiving any military instructions. This regulation applies to all students of the college in the Military Department. Arrangements have been made by which this uniform can be obtained through the Secretary of the College at actual cost, about fifteen dollars. The attention of students intending to enter college is called to the fact that this uniform has been found more serviceable than civilian clothes of the same price, and that all must be prepared to order the uniform when they enter.

Regular drill and instruction occurs five hours a week. That the benefit derived from this course is appreciated today, more than ever, is shown by the fact that nearly a hundred of our higher institutions of learning throughout the country have military departments in charge of an officer of the regular army.

A cadet band is maintained under the immediate charge of the Director of the School of Music. It appears with the cadet battalion at parade, reviews and other ceremonies.

### PRACTICAL.

INFANTRY DRILL REGULATIONS. School of the soldier, squad, company and battallion. The ceremonies of guard mounting, parade and review; guard duty; advance and rear guard; outposts; practice marches and target practice.

For target practice the College has excellent indoor and outdoor ranges. The U. S. Government gives an ample allowance of ammunition.

### THEORETICAL.

FIRST YEAR COURSE. *Infantry Drill Regulations*. Manual of Guard Duty. One hour per week throughout the year.

SECOND YEAR COURSE. *Field Service Regulations*. Small Arms firing regulations. One hour per week throughout the year.

THIRD YEAR COURSE. *Security and Information*. Military Field Engineering Lectures on Art and Science of War. One credit hour. One hour per week throughout the year. Elective. (Required of cadet officers.)

FOURTH YEAR COURSE. *Military Law*. One credit hour. One hour per week throughout the year. Elective. Required of cadet officers who have had the third year course.

#### ORGANIZATION 1906-1907.

Adjutant 1st Lieut., Wm. Mortimer.

Sergeant Major, Robert Kerr.

	Co. A.	Co. B.	Co. C.
Captain,	W. L. Jones,	Chas. E. Fleming,	L. M. Winsor,
1st Lieut., (vacancy)		L. C. Child,	Alma Beck,
2nd Lieut.,	E. F. Burton,	W. F. Barton,	P. C. Passey,
1st Serg't,	Ivan Kerr,	J. W. Johnson,	Henry Plant,
Sergeants,	Geo. Stonebreaker	J. A. Marley,	L. C. Monson,
	J. S. Paddock,	A. P. Monson,	I. L. Jones,
	A. B. Ballantyne,	R. H. Stewart,	Harley Greaves,
	(vacancy)	D. Sharp,	T. Welling,
Corporals,	L. A. Woodward,	Low Zundel,	R. A. Taylor,
	L. Wright,	R. Kirby,	A. Green,
	R. Bean,	L. S. Merrill,	E. Robinson,
	W. W. Bean,	R. S. Curtis,	(vacancy).
	L. A. Richardson.		

## CADET RIFLE TEAM.

Sharpshooters: L. Krogue, Private Co. A; A. Robinson, Private Co. B; D. H. Beus, Private Co. C; J. S. Paddock, Sergeant Co. A; Robert Kerr, Sergeant Major.

Marksmen: A. Beck, 1st Lieut. Co. C; W. W. Ream, Corporal Co. A; W. L. Jones, Captain Co. A; S. Streeter, Private Co. B; J. W. Johson, 1st Lieut. Co. B.

Substitutes: Ivan Kerr, 1st Lieut. Co. A; L. M. Winsor, Captain Co. C.

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## PHYSICAL EDUCATION

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PROFESSOR WALKER.

MISS HUNTSMAN.

It is the aim of the Department of Physical Education to foster hygienic habits among the students, and so direct their exercise that they may have a physical development fit to support and make efficient the mental development which they seek in attending the institution. This is accomplished, first, by giving them the needed opportunity for gymnastic exercises; second, by encouraging athletic games, thereby stimulating an interest in their physical efficiency and in the pleasure of physical activity; and, third, by giving them a guiding knowledge of the principles of physical education. All the work is based upon a careful physical examination and strength test.

### PHYSICAL EDUCATION FOR MEN.

I. Open to all male students of the institution. Three hours a week. One hour credit.

(a) GYMNASIUM EXERCISES. These consist of vigorous drills with dumb bells, Indian clubs, wands, etc., and gymnasium games under the supervision of the instructor.

(b) LECTURES. The gymnasium work is supplemented by lectures on personal hygiene, the physiology of exercise, first aid to the injured, etc.

## PHYSICAL EDUCATION FOR WOMEN.

Two years of physical education are required of all women students of the College. The work of the courses is arranged, as far as possible, with reference to the needs of the individual student as indicated by the physical examination and study of personal tendencies. The hygienic, corrective, and educative effects of exercise are sought in the arrangement of movements.

Students are required to wear full gymnasium costume, consisting of blouse, divided skirt and slippers. Costumes are ordered through the Secretary of the College and furnished to the student at actual cost, which is about \$3.

**FIRST YEAR COURSE.** The aim of this course is to overcome physical defects, to establish a correct carriage of the body, to strengthen the muscles, and to relieve the tension of brain work. The course consists of relaxing exercises, mat exercises, corrective movements, adapted from the German and Swedish systems, exercises with light apparatus, marching, dancing, and games.

**SECOND YEAR COURSE.** A continuation of the first year course. The variety of movements is increased according to the ability and progress of the student. Prescribed individual exercises with the developing appliances, athletics, etc.



# Winter Courses

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## AGRICULTURE

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1. AGRONOMY. A discussion of the following topics: the atmosphere as a source of plant food; the soil—its formation and classification, the compounds it contains as sources of plant food; the plant—how it grows, feeds, and matures, and the animal food product it yields; how to maintain the fertility of Utah soils; rotation of crops; irrigation in its relation to the production of crops. Five hours a week.

2. JUDGING AND MANAGEMENT OF LIVESTOCK. A discussion of the various types of livestock; their adaptability for various purposes on the farm, and the principles involved in their improvement. As much time as possible is given to the practical handling and judging of the living animals on the College farm. Craig's *Judging Live Stock*. Five hours a week.

3. FEEDING LIVE STOCK. The principles underlying the successful feeding of live stock on the farm and the practical applications of Utah conditions. Five hours a week.

4. DAIRYING. A discussion of the composition and properties of milk; milk testing; milk fermentation, etc. The manufacture of butter and cheese is fully explained. Wing's *Milk and Its Products*. Five hours a week.

5. DAIRY PRACTICE. Those who wish to specialize in dairying have opportunity for ample practice in the College dairy, which is well equipped with modern apparatus.

6. POULTRY. The instruction covers breeds of poultry, foods and feeding, buildings and management. Where desired, arrangements can be made for practice in operating incubators. Five hours a week.

7. **HORTICULTURE.** A course of lectures covering the following subjects: selection of varieties; soil adaptation; preparation for planting; care and cultivation; commercial orcharding; picking, packing, and marketing fruit; orchard disinfection, including a careful study of prevalent orchard diseases and injurious insects, and the means of combating them; pruning of trees and treatment of tree wounds, to be demonstrated by practical work in the College orchard; top-grafting of mature trees; orchard irrigation and conservation of moisture; drainage of orchard lands; fertilization of trees for growth and for fruit, etc. Five hours a week.

8. **ECONOMIC ENTOMOLOGY.** Designed as an introduction to the more advanced work in entomology. In addition to the lectures and text-book work, students receive some training in the use of the microscope. Special attention is given to the general principles involved in dealing with injurious insects. Five hours a week.

9. **VETERINARY SCIENCE.** How to locate and detect the more common ailments of our domestic animals, and methods of prevention and curing. Those diseases most frequently met with in this inter-mountain region receive special attention. Consideration is given to ideal sanitary conditions for different animals; common errors are pointed out and corrections suggested. Students taking this course are expected to attend the clinic each Monday. Five hours a week.

10. **IRRIGATION AND DRAINAGE.** Designed especially for the requirements of the farmer who can spend but a limited time in the school room. The work in irrigation includes methods of irrigation, division and measurement of water, prevention of loss of soil moisture by evaporation and seepage, and some effects of irrigation upon plant growth and crop production. A few lectures will be given on methods of draining water-logged and alkali lands, with a discussion of the cost and results of under-drainage. Five hours a week.

11. **FARM ACCOUNTING.** The importance and necessity of

keeping accounts on the farm are emphasized. Methods are discussed and developed. Business forms and customs are studied, and after the underlying principles have been mastered, practical work in accounting is given. Five hours a week.

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## DOMESTIC SCIENCE AND ARTS

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1. **FOODS.** The nutritive value and cost of foods; a study of cooking processes and home meal service. Elective to winter course students. Two laboratory periods per week.

2. **HOME ECONOMICS AND ART.** A study of household management, accounts, division of income, the servant question, and art as applied to everyday life. Elective to winter course students. Five lectures per week.

3. **HYGIENE.** Relation of food, clothing and sanitary surroundings to health. Elective to winter course students. Three lectures per week.

4. **DAIRYING.** Instruction in cheese and butter-making, on both the factory and home dairy plans, is given in the College dairy. For lectures and plan of work, see Agricultural Courses.

5. **SEWING.** This course includes hand and machine sewing, the students completing as much of the work outlined in Courses 1 and 2 in Sewing as they can do successfully in the time allowed for the work.

6. **DRESSMAKING.** Gowns are cut out, basted and made entirely by the students. Students furnish material and make their own garments. Five hours a week.

7. **DESIGNING, CUTTING AND FITTING.** Instruction is given by talks on grace in design of costumes and harmony of colors. Special attention is given to hygienic modes of dress. The students are taught to make drawings of the costumes they design; they also learn to draft patterns for measurements. Further practice is given in cutting and fitting. Five hours a week.

8. **FANCY WORK.** This course includes Kensington embroidery, Roman cut work, Spanish laid work, drawn work, jeweled embroidery, and modern lace making. Five hours a week.

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## MECHANIC ARTS

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1. **CARPENTRY A.** Rudimentary exercises in sawing, ripping, planing, mortising, dovetailing, and joinery, furnish the details of this course. Correct methods of using and handling tools are emphasized. Fifteen hours a week.

2. **CARPENTRY B.** Sharpening and adjusting carpenter's tools, and saw filing, followed by simple cabinet work, constitutes the work of this course. Fifteen hours a week.

3. **CARPENTRY C.** Work in elementary cabinet making. School tables, bookcases, etc., are representative exercises. Open to students who have completed Courses A and B or their equivalent.

4. **FORGING A.** Preliminary exercises, such as drawing, bending, twisting, and shaping, and welding and making iron tools. Accuracy in methods and results is insisted upon. Fifteen hours a week.

5. **FORGING B.** Practice in steel and iron welds, steel and steel welds, and general work in steel tool forging and dressing. Chisels, punches, reamers, hammers, tin shears, nippers, etc., are sample exercises. Prerequisite, Forging A. Fifteen hours a week.

6. **FORGING C.** Horseshoeing, carriage and farm implement repairing. Open to students who have completed Forging A and B or their equivalent.

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## COMMERCE

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1. **BOOKKEEPING.** An elementary course in the principles of accounting by single and double entry. Drill in commercial arithmetic, penmanship, business customs, etc. For further de-



scription see Accounting 2, of which this is a modified course. Ten hours a week.

2. BUSINESS FORMS. The fundamental principles of accounting are applied in this course by means of practical work in the use of different forms and blanks pertaining to actual business. Given in connection with Accounting 1. Five hours a week.

3. COMMERCIAL LAW. A study of the nature of law, common and statutory law, contracts, agency, bailments, bankruptcy and insolvency, insurance, negotiable papers, partnerships, corporations, etc. Two lectures a week.

4. PENMANSHIP. See Penmanship 2.

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## THE SUMMER SCHOOL

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The College maintains, as an integral part of its work, a summer session, beginning on the first Monday following Commencement Day, and continuing for five weeks. Every department of the College is represented, the courses of instruction being arranged to meet the peculiar needs of summer students. For the benefit of teachers, special courses are provided in pedagogy, psychology, sloyd, and nature study, in addition to the regular work in Agriculture, Domestic Science, etc. College students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is available for the summer session, and every care is taken to preserve the standard and the spirit of the College. No admission requirements are prescribed, but students in all departments are directed by instructors to those courses in which they may pursue work to the best advantage. No one is advised to elect more than four courses. Students will receive such credits on the College register as the quality and amount of work done may warrant. Arrangements have been made with County Superintendents throughout the State to accept Summer School credits in individual subjects in lieu of examination. In addition

to the routine work of the session, a course of daily lectures is provided, appealing both to teachers and to the general public, and covering a wide range of interesting subjects. An entrance fee of \$2.50 is charged for each course for which the student registers. Board and rooms can be secured throughout the city at the usual prices, and the College Dormitory also is open to summer students at a nominal rate.

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## ENGINEERING

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The Legislature of the State of Utah at the session of 1905, passed a law amending Section 2087 of the Revised Statutes of Utah, relating to the courses of study that shall be offered by the Agricultural College. This law prohibits the College from offering courses in engineering, but provides that courses of instruction shall be offered in "elementary surveying" and "in irrigation as applied to the measurement, distribution and application of water for agricultural purposes."

In accordance with this law, the Agricultural College no longer offers courses leading to degrees in engineering. The engineering work now given by the College is related directly to agriculture, irrigation and mechanic arts, and will be found described elsewhere in this catalogue.

However, students who were engineering freshmen at the time the law was passed are entitled to graduation in engineering, by the College. For these students, who will be seniors during the school year of 1907-08, provision has been made, whereby they may receive the necessary senior engineering instruction. Properly qualified students, may therefore receive advanced instruction in engineering during this school year, and may graduate with degrees in engineering with the class of 1908.

The law which prohibits the College from giving degrees in engineering, also prohibits the University of Utah from giving instruction in irrigation. This eliminates from both schools the

possibility of training young men for irrigation engineering—one of the most vital branches of engineering in the West. To meet this unfortunate condition the State School of Mines and the Agricultural College offer, jointly, a course leading to the degree of Bachelor of Science in Irrigation Engineering. The first years of this course will be given by the Agricultural College, and are identical with the college course in Irrigation and Drainage. The last two years, which will deal almost wholly with the technical work in engineering, will be given by the School of Mines at Salt Lake City.

The Agricultural College in its Schools of Mechanic Arts, and General Science, offers excellent preparation for students who intend to pursue work in engineering.

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## NORMAL TRAINING

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For the purpose of providing specially trained teachers of domestic science and arts, agriculture, and mechanical arts, arrangements have been made whereby the graduates of the State Normal School of the University may enter the degree courses of the Agricultural College and there receive technical work in domestic science and arts, agriculture, and mechanic arts. All the work done in the State Normal School will be credited the candidates for the professional degree.

Graduates from the degree courses in Domestic Science and Arts, Agriculture, and Mechanic Arts of the Agricultural College will be given the regular normal certificate upon the completion of one year of professional work at the State Normal School.

Graduates from the regular high school courses of the Agricultural College will be entered for the professional work of the Normal School, and will be given full credit for the work done at the Agricultural College.

Instruction in elementary agriculture will be given the students of the State Normal School, every Monday, by the extension department of the Agricultural College.

## Alumni Association

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The Alumni Association was organized in June, 1899. All those who hold degrees in any of the courses in the College are eligible to membership. In the first two classes, three students were graduated with the degree of Bachelor of Civil Engineering, (B. C. E.). Since 1895, five prescribed courses have been offered, but the degree in each has been Bachelor of Science (B. S.), the particular course being specified in the diploma.

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### OFFICERS FOR 1907-8.

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James C. Hogensen, '99, President.

Roy Rudolph, '05, First Vice-President.

Inez Powell, '07, Second Vice-President.

David E. Stephens, '04, Secretary.

Benjamin F. Riter, Jr., '07, Treasurer.



## Fourteenth Annual Commencement

### GRADUATES.

#### WITH DEGREES.

*Bachelor of Science in Agriculture.*—Fred Mathews, Eureka, Utah; Preston Geddes Peterson, Logan, Utah.

*Bachelor of Science in Domestic Arts.*—Inez Powell, Logan, Utah.

*Bachelor of Science in Civil Engineering.*—Frank Moench, Ogden, Utah.

*Bachelor of Science in Commerce.*—Aaron Brigham Olsen, Logan, Utah.

*Bachelor of Science in General Science.*—Francis David Farrell, Logan, Utah; James Leonard Kearns, Salt Lake City, Utah; Benjamin Franklin Riter, Jr., Logan, Utah.

#### WITH CERTIFICATES.

*Agriculture.*—Joseph Delbert Barker, Ogden, Utah. George Franklin Barton, Ferron, Utah. Ephraim Fielding Burton, Afton, Wyoming. Wilford Fielding Burton, Afton, Wyoming. Erastus Peterson, Glenwood, Utah. Jerome Wheeler, Slaterville, Utah.

*Domestic Science.*—Annie Ethelyn Burns, Logan, Utah. Della Cooper, Dempsey, Idaho. Janie Caroline Roberts, Layton, Utah. Vida Margaret Roberts, Layton, Utah.

*Commerce.*—Leo Bennet, Lago, Idaho. John Edward Bramwell, Plain City, Utah. William John Hicks, Bingham, Utah. Robert Lund Judd, St. George, Utah. Joseph Clarence McGown, Custer, Idaho. Ludwig Westerholm, Ivers, Idaho. Junius Leo Whitmore, Price, Utah. Lorin Alma Whitmore, Nephi, Utah.

*Manual Training Domestic Arts.*—Nellie Barker, Ogden, Utah. Sarah Moselle Bybee, Lewiston, Utah. Jean Crookston, Greenville, Utah. Bertha Kerr, Richmond, Utah.

*Manual Training Mechanic Arts.*—Alma Frederickson, Colonia Diaz, Mexico. Edward John Passey, Paris, Idaho. George Edward Sandgren, Pleasant Grove, Utah. Dan Arthur Swenson, Pleasant Grove, Utah. John Taylor, Salt Lake City, Utah.

## CATALOGUE OF STUDENTS

In the following list A. stands for Agriculture; C., for Commerce; D. S., for Domestic Science; E., for Engineering; G. S., for General Science; M., for Music; M. A., for Mechanic Arts.

### GRADUATES.

Coburn, John Leatham.....	Wellsville
Cooper, Blanche .....	Logan
Holmgren, Amanda .....	Brigham City
Jardine, James Tertius .....	Logan
Porter, Charles Walter .....	Logan

### SENIORS.

Farrell, Francis David (G. S.).....	Logan
Kearns, James Leonard (G. S.).....	Salt Lake City
Mathews, Fred (A.).....	Eureka
Moench, Frank (E.) .....	Ogden
Olsen, Aaron Brigham (C.) .....	Logan
Peterson, Preston Geddes (A.) .....	Logan
Powell, Inez (D. S.) .....	Logan
Riter, Benjamin Franklin, Jr. (G. S.).....	Logan

### JUNIORS.

Austin, Torrey Lynn (E.) .....	Liberty, Idaho
Carver, Heber (E.) .....	Ogden
Chambers, Edward (E.) .....	Smithfield
Cox, Jean (D. S.) .....	Manti
Fleming, Chas. Elliott (A.) .....	American Fork
Hansen, Alva (C.) .....	American Fork
Hayball, Nellie (G. S.) .....	Logan
Homer, Russell King (G. S.) .....	Logan
Horton, John Raymond (G. S.) .....	Ogden
Hudman, Ellis (E.) .....	Slaterville
Jacobson, Eunice Estella (G. S.) .....	Logan
Jensen, Hans Ephraim (C.) .....	Ephraim
Orr, Richard Robert (E.) .....	Clover

Palmer, Alfred Merle (G. S.)	Oxford, Ida.
Parry, Eston Marvel (A.)	Salt Lake City
Turpin, George Melvin (A.)	Murray

## SOPHOMORES.

Bell, Joseph Sprague (C.)	Park City
Bjerregaard, Walter (E.)	Ephraim
Brown, Mark (E.)	Ogden
Cardon, Philip Vincent (A.)	Logan
Christensen, Esther (G. S.)	Logan
Dobbs, Lester Reese (E.)	Bingham
Farnsworth, William Yates (E.)	Frisco
Gardner, Wilford Woodruff (E.)	Afton, Wyoming
Gentry, Ralph (E.)	Coalville
Harris, Melvin Charles (G. S.)	Richmond
Hoff, Ernest Prior (G. S.)	Georgetown, Idaho
Hughes, Robert (E.)	Logan
Judd, Robert Lund (C.)	St. George
Kerr, Bertha (D. S.)	Richmond
Kerr, Vesta (D. S.)	Logan
Mathias, Jared LeRoy (E.)	Rigby, Ida.
McCarty, Edgar Cook (A.)	Moroni
McAlister, Caroline Armeda (D. S.)	Logan
Skeen, Alfred David (C.)	Plain City
Stoops, Herbert Morton (G. S.)	Logan
Stratford, Ina Rosetta (D. S.)	Logan
Walker, William Lawrence (G. S.)	Eden
Walters, Edward Haslam (G. S.)	Logan
Wendelboe, Leo Paul (E.)	Logan
Wheeler, Jerome (A.)	Slaterville
Wallace, Cadmus (A.)	Sugar City, Ida.

## FRESHMEN.

Aldous, Alfred Evan (G. S.)	Ogden
Ballantyne, Alando Bennerman (E.)	Logan
Brown, William Wallace (A.)	Liberty, Ida.

Christensen, David Wilford (A.) .....	Newton
Cooper, Della (D. S.) .....	Dempsey, Idaho
Crocker, Walter James (A.).....	Ogden
Dennis, Claud Eugene (G. S.).....	Eureka
Evans, David Wm. (G. S.) .....	Malad, Idaho
Grue, Joseph (E.) .....	Plain City
Jacobsen, Julius W. B. (A.) .....	Logan
Johnson, John Wm. (G. S.).....	Marysville, Ida.
Kerr, Ivin Earl (G. S.) .....	Ora, Idaho
Kerr, Robert Marriner (G. S.).....	Ora, Idaho
Kjar, Lewis Melroy (A.) .....	Manti
Malm, John Siegfried (E.) .....	Custer, Ida.
McAlister, Charles Davidson (G. S.).....	Rexburg, Idaho
Miller, Fritz (E.) .....	Traverse City, Mich.
Morrison, John A. (A.) .....	Franklin, Ida.
Munk, Josie (D. S.) .....	Manti
Nebeker, Shirley (E.) .....	Laketown
Nebeker, Herbert John (A.) .....	Logan
Nelson, Swen E. (A.) .....	Newton
Peterson, Dean Freeman (A.) .....	Scipio
Preston, Wm. Booker, Jr. (E.).....	Logan
Riter, William Corlett (A.) .....	Logan
Smith, Guy Marvin (C.) .....	Lewiston
Stewart James Haslam (E.) .....	Wellsville
Stewart, Robert Haslam (E.) .....	Wellsville
Wyatt, Franklin Archibald (M. A.) .....	Wellsville

SPECIALS.

Brown, Mamie Estella (M.) .....	Logan
Bowen, Alice Delilah (D. S.) .....	Ogden
Cardon, George David (D. S.).....	Logan
Cardon, Ariel Frederick (G. S.) .....	Logan
Carter, Wesley J. (M.) .....	Deweyville
Cragun, Katie (G. S.).....	Smithfield
Cole, Ira Arnold (G. S.) .....	Logan
Crockett, Henry W. (A.) .....	Logan



Davis, Mary Violet (G. S.) .....	Logan
Fisher, Victor Russell (G. S.) .....	Oxford, Ida.
Foster, Thora Lute (D. S.) .....	Las Cruces, N. M.
Gardner, Josephine (M.) .....	Pine Valley
Gilpin, Grace (M.) .....	Corinne
Hansen, Orson Wilford (G. S.) .....	Logan
Hansen, Robert Hammond (G. S.) .....	Levan
Jensen, Wm. Arthur (C.) .....	Logan
Larson, Rudolph Victor (G. S.) .....	Smithfield
Linnartz, Anna M. (M.) .....	Logan
Lundstrom, Hilda (G. S.) .....	Logan
Leaman, Lilly May (G. S.) .....	Ogden
McCausland, Charles A. (M.) .....	Logan
McKay, Thomas Evans (A.) .....	Huntsville
Newey, Aaron (M. A.) .....	Logan
Shaw, Lela Anna (M.) .....	Corinne
Snow, Willard Conrad (G. S.) .....	Salt Lake City
Stephens, John (A.) .....	Logan

## AGRICULTURE.

*Third Year.*

Barker, Joseph Delbert .....	Ogden
Barton, George Franklin .....	Ferron
Burton, Ephraim Fielding .....	Afton, Wyo.
Burton, Wilford Fielding .....	Afton, Wyo.
Cox, Almer Burns .....	Fairview
Irons, Joseph Golden .....	Nephi
Peterson, Erastus .....	Glenwood
Winsor, Luther Merkins .....	Enterprise

*Second Year.*

Batt, William .....	Logan
Coburn, Elmo Preston .....	Wellsville
Egbert, Ivan .....	Logan
Froerer, Frederick .....	Huntsville
Hansen, Leo Henry .....	Levan

Haskell, David Elijah .....	Newton
Hobson, Ivan Leslie.....	Logan
Holden, James .....	Logan
Izatt, Angus .....	Logan
Jamison, William Flove .....	Lewiston
Jones, William Leroy .....	Mt. Sterling
Knighton, Lynn Kearns .....	Gunnison
Paddock, John Stephen .....	Wisdom, Mont.
Peterson, Jesse Larson .....	Mendon
Robinson, Earl .....	Richmond
Stratford, Alfred Edgar.....	Ogden
Rigby, George O. ....	Newton
Tippetts, John Roy .....	Lakeshore
Turpin, Leroy .....	Murray
Vance, Arthur .....	Fairview
Winsor, Anson Perry .....	Enterprise
Wrigley, Robert Lacourn .....	American Fork

*First Year.*

Allen Merle .....	Cove
Albrethsen, Adolph .....	Picabo, Ida.
Bean, Ross Smoot .....	Provo
Brinkerhoff, George .....	Thurber
Caine, George Ballif .....	Logan
Crockett, Vernon Winsor .....	Logan
Hurst, William M. ....	Beaver
Jackson, Elmer .....	Randolph
Jackson, Frank .....	Randolph
Jensen, Arthur .....	Kanab
Jones, William Ennes .....	Beaver
Jones, Jenkin William .....	Cherry Creek, Idaho
Lowe, Robert Downey .....	Franklin, Ida.
Marshall, Elmer .....	Minersville
McNiel, William .....	Logan
Paddock, Paul Charles .....	Wisdom, Mont.
Peterson, Earl .....	Bloomington, Idaho

Peterson, Verne .....	Glenwood
Randolph, Roy .....	Hallock, Nev.
Richardson, Lester Amon .....	Ogden
Robinson, Alvin .....	Freedom, Wyo.
Robinson, Guy .....	Glenn, Ida.
Sessions, James Wiley .....	Marion, Ida.
Sharp, David .....	Vernon
Smith, Wesley Ensign .....	Logan
Turner, Simpson Montgomery .....	Logan
Wennergren, Oscar .....	Logan
Wyatt, Ralph Archibald .....	Wellsville

*Winter Course.*

Alley, Willis David .....	Laketown
Austin, Clarence .....	Salt Lake City
Barton, Arthur George .....	Ferron
Crafts, Elmer .....	Cedar Valley
Davidson, Golden .....	Greenville
Gambling, Robert .....	Sheron, Ida.
Garlic, William .....	Fairview
Graham, Charles Allen .....	Logan
Justesen, William .....	Logan
Lambourne, George Edwin .....	Laketown
Martineau, Nephi .....	Benson
Mikkelsen, Mikkell A. ....	Logan
Mitchell, Arzy .....	Kamas
Pace, Harvey A. ....	Price
Seeley, Earl .....	Mt. Pleasant
Stapley, William B. ....	Loa
Steed, Charles E. ....	Hooper
Thackeray, Royal George .....	Mendon
Thurston, Simpson B. ....	Hyde Park
Waite, William Wallace .....	Hyde Park

*SPECIAL CREAMERY.*

Anderson, Gustave Edward .....	Grantsville
Barton, Arthur George .....	Ferron

Bingham, Sanford Leroy .....	Ogden
Brinkerhoff, George .....	Thurber
Christensen, Christian A. ....	Bear River
Christensen, George M. ....	Paris, Idaho
Clement, Charles .....	Fairview
Felt, John .....	Huntsville
Garlic, William M. ....	Fairview
Harper, Thomas Ephraim .....	Albion, Ida.
Haslam, George J. ....	Wellsville
Lofthouse, Charles Edwin .....	Paradise
Mitchell, Arzy .....	Kamas
Ririe, Joseph .....	Ogden
Stapley, William B. ....	Loa

OPTIONALS.

Alley, Willis David .....	Laketown
Benson, John Phineus .....	Newton
Crafts, Elmer .....	Cedar Valley
Gambling, Robert C. ....	Sheron, Idaho
Homer, Brigham E. ....	Poplar, Ida.
Lambourne, George Edwin .....	Laketown
Lofthouse, Charles Edwin .....	Paradise
Peterson, Christian A. ....	Newton
Smith, George A. ....	Poplar, Idaho
Seeley, Earl .....	Mt. Pleasant

DOMESTIC SCIENCE.

*Third Year.*

Barber, L'Aprile .....	Cardston, Canada
Jones, Letitia .....	Malad, Idaho
Roberts, Janie Caroline .....	Layton

*Second Year.*

Ballard, Mary Myrtle .....	Logan
Cole, Zina Rachel .....	Willard
Davidson, Nellie .....	Greenville



Dudley, Sarah Elizabeth .....	Malad, Idaho
Farrell, Lorraine .....	Logan
Justesen, Norma Fay .....	Logan
Peck, Julia A. ....	Malad, Idaho
Roberts, Phebe .....	Layton
Smith, Emma May .....	Kanarra
Stoops, Josephine Curtis .....	Logan
Swauger, Amanda Mae .....	Mackay, Ida.

*First Year.*

Adams, Katie .....	Layton
Andrews, Luella .....	Logan
Crookston, Agnes .....	Logan
Daniels, Anna .....	Malad, Ida.
Hansen, Patience .....	American Fork
Larsen, Lenore Josephine .....	Salt Lake City
Monson, Alta Lavene .....	Logan
Morrell, Winnifred .....	Logan
Nebeker, Lottie Delia .....	Logan
Nelson, Eleda Anna .....	Logan
Owen, Alta Benson .....	Wellsville
Sneddon, Dora Melville .....	Diamondville, Wyo.
Sneddon, Mary .....	Diamondville, Wyo.
Young, Ada Christine .....	Logan

## COMMERCE.

*Third Year.*

Andrews, Michael, Jr. ....	Logan
Bennet, Leo .....	Lago, Ida.
Bramwell, John Edward .....	Plain City
Childs, Linzy Clark .....	Lima
Curtis, Ray Barker .....	Victor
Edwards, Edward Cephas .....	Logan
Hicks, William John .....	Bingham
Jones, Bernard Amos .....	Malad, Ida.
Johnson, Henrietta .....	Oxford, Ida.

Johnson, Heber Francis .....	Richmond
Justesen, Virgis William .....	Logan
Maupin, Emily Martha .....	Boise, Ida.
Mattson, Millie Adna .....	St. Charles, Ida.
McGown, Joseph Clarence .....	Custer, Ida.
Munk, Elizabeth .....	Logan
Olsen, Wilford Woodruff.....	Logan
Pence, James Dunbar .....	Mountain Home, Ida.
Peterson, Willard Larson .....	Mendon
Westerholm, Ludwig .....	Ivers, Ida.
Whitmore, Junius Leo .....	Price
Whitmore, Lorin Alma .....	Nephi

*Second Year.*

Andrews, Junius James .....	Logan
Andrews, Lorin Azel .....	Fairview
Bell, Thomas Ray .....	Richmond
Bingham, Sanford Leroy .....	Ogden
Greaves, Harley .....	Preston, Idaho
Gutting, Campton Daniel .....	Blackfoot, Ida.
Hansen, Radie .....	Logan
Hansen, Erlese Peter .....	Providence
Hendricks, Ralph .....	Richmond
Hoff, Ruby Lucile .....	Montpelier, Idaho
Jensen, Effie .....	Mendon
Johnson, David Ervin .....	Garden City
Jones, Mame .....	Logan
Jones, Marie Louise .....	Pocatello, Ida.
Justesen, Barney .....	Logan
Larson, Johanna .....	Logan
Lowe, Rosella .....	Franklin, Idaho
Lund, Lettie .....	Logan
Marley, Joseph Alvin .....	McCammon, Idaho
Morgan, John Devere .....	Collinston
Murphy, Joseph Jerry .....	Eureka

Nelson, Jennett .....	Logan
Peterson, Helga .....	Mendon

*Second Year.*

Plant, Henry Thomas .....	Richmond
Sprouse, Nellie M. ....	Garden City
Swendsen, Bert .....	Richmond
Taylor, Rawson Lamoni .....	Preston, Ida.
Taylor, Vera Evelyn .....	Baker City, Ore.
Winsor, Mrs. Barbara .....	Logan
Woodward, Leroy Archie .....	Cokeville, Wyo.
Wright, Geneve .....	Idaho Falls, Ida.
Wright, Leslie .....	Lago, Ida.

*First Year.*

Anderson, Franklin Peter .....	Moroni
Barret, Adeline Patti .....	Logan
Brinkerhoff, Willard Duain .....	Thurber
Brinkerhoff, Royal .....	Thurber
Blackham, Joseph Alma .....	Moroni
Brown, William Hardin .....	Valparaiso, Ind.
Carlisle, John Thomas .....	King
Carlson, Roscoe Stark .....	Logan
Catron, Peter Hopis .....	Mendon
Carpenter, Alfonso .....	Kamas
Clive, William Campbell .....	Salt Lake City
Davis, Eugene .....	Malad, Ida.
Dunlop, Louise .....	Salt Lake City
Facer, James Levere .....	Logan
Frodsham, Josephine .....	Rockland, Ida.
Froiseth, Robert Strong .....	Salt Lake City
Fullmer, Clyde Franklin .....	Green River
Green, Alfred John .....	Ophir
Halgren, Levon Oscar .....	Franklin, Ida.
Hart, Franklin .....	Raymond, Ida.
Henderson, Adelbert .....	Clifton, Ida.

Hickman, Joseph .....	Loa
Jensen, Ezra Peter .....	Garland
Jensen, James Leroy .....	Hyrum
Johnson, Berdie .....	Marysville, Ida.
Johnson, Sarah .....	Marysville, Ida.
Laurenson, Frank William .....	Downey, Ida.
Laurenson, Lillie .....	Downey, Ida.
Lewis, Clair .....	Logan
Lewis, Nellie Hazel .....	Fossil, Wyo.
Marmion, John Thomas .....	Cokeville, Wyo.
Major, Jackson Coleman .....	Ogden
McGregor, Daniel Willis .....	Perry, Ida.
McIntire, Lena .....	Price
McIntire, Oscar .....	Price
Marshall, Griffin Harris .....	Ogden
Merrill, Lorin Smith .....	Bloomington, Idaho
Monson, Alfred Peter .....	Pleasant Grove
Oliver, Guy Mearl .....	American Falls, Ida.
Pace, Vernon Willard .....	Loa
Perkins, James Clark .....	Salt Lake City
Porter, George .....	Blackfoot, Ida.
Rogers, Lemuel Van .....	Fielding
Salisbury, Ellis Stoddard .....	Alicel, Ore.
Secrist, Jesse Avern .....	Logan
Shurtliff, Lorenzo James .....	Logan
Smith, William Leroy .....	Logan
Thoresen, Ingwald Eugene .....	Logan
Waters, Raymond .....	Rigby, Ida.
Warr, Albert William .....	Kamas
Webb, Joseph Eugene .....	Richmond
Wood, Emma .....	Trenton
West, Arthur Austin .....	American Falls, Ida.
Zundel, Laron .....	La Grande, Ore.
Zundel, Low .....	La Grande, Ore.



*Winter Course.*

Adams, Laurence .....	Layton
Bunderson, Hervin .....	St. Charles, Ida.
Hickman, Don Franklin .....	Grover
Johnson, Oscar Leroy .....	Shoshone, Ida.
Leigh, Samuel Fife .....	Cedar
Lindberg, George .....	Hyrum
O'Driscoll, Isaac .....	Kamas
Peterson, Clara Matilda .....	Logan
Randolph, Nyida .....	Haclock, Nev.
Tunks, Sam Van .....	Ovid, Ida.
Wilcox, Eldon .....	Logan

## DOMESTIC ARTS.

*Third Year.*

Barker, Nellie .....	Ogden
Burns, Ethelyn Anna .....	Logan
Bybee, Sarah Moselle .....	Lewiston
Crookston, Jean .....	Greenville
Mathews, Etta .....	Eureka

*Second Year.*

Adams, Marion Ferdinand .....	Logan
Adams, Ethel .....	Logan
Daniels, Virginia Edna .....	Logan
Ellis, Kate .....	Logan
Forgeon, Emily .....	Logan
Frederickson, Emma .....	Colonia Diaz, Mexico
Fuller, Annabell .....	Eden
Homer, Edith Emeline .....	Logan
Jensen, Sylvia .....	Logan
Mathisen, Anna .....	Ovid, Ida.
Mills, Elsie .....	Evanston, Wyo.
Quayle, Blanch .....	Dingle, Ida.
Skeen, Isabella .....	Plain City

*First Year.*

Adams, Gracie .....	Layton
Bryner, Ada Luella .....	Price
Coburn, Ida Lena .....	Weston, Ida.
Crookston, Lucile .....	Greenville
Forgeon, Estella .....	Logan
Froiseth, Dorothy Stanley .....	Salt Lake City
Fuller, Lyda Elizabeth .....	Eden
Greenhalgh, Cora Elma .....	Logan
Hardy, Ada .....	Roy
Hale, Viola Mary .....	Oakley, Ida.
Hayball, Edith .....	Logan
Hayball, Lucile .....	Logan
Hyde, Clara .....	Logan
Jardine, Lenora .....	Logan
Jones, Bertha .....	Mt. Sterling
Jones, Rachel Cecelia .....	Cherry Creek, Ida.
Kartchner, Floy .....	Logan
Kerr, Leona .....	Logan
Lewis, Sarah Elizabeth .....	Dingle, Ida.
Lowe, Refuge .....	Logan
Machin, Florence .....	Logan
Mathews, Margaret .....	King
Munk, Laura Marie .....	Benson
McGown, Mae Alberta .....	Lima, Mont.
Nelson, Essie Jean .....	Logan
Nowacki, Rose Ella .....	Mackay, Ida.
Parke, Lavinna .....	Riverside
Parke, Sadie .....	Riverside
Peterson, Katie .....	Glenwood
Stephens, Charlotte .....	Briston, Mont.
Stratford, Pearl .....	Logan
Sorenson, Millie .....	Neely, Ida.
St. George, Anna .....	Butte, Mont.
Sprouse, Geneva .....	Garden City

Thatcher, Ethel .....	Thatcher, Ida.
Thomas, Elizabeth Aitken .....	Logan
Thompson, Bertha Dorothea .....	Benson
Tidwell, Zina .....	Moroni
Williams, Matilda .....	Chester, Ida.
Woolf, Grace Myrtle .....	Cardston, Canada
Worley, Alice La Verne .....	Logan

## MECHANIC ARTS.

*Fourth Year.*

Frederickson, Alma .....	Colonia Diaz, Mexico
Passey, Edward John .....	Paris, Ida.
Sandgreen, George Edward .....	Pleasant Grove
Swenson, Dan Arthur .....	Pleasant Grove
Taylor, John .....	Salt Lake City
Wangsgard, Fred Christian .....	Huntsville

*Third Year.*

Beck, Alma .....	Spanish Fork
Frew, William, Jr. ....	Hooper
Mitchell, Edgar Bentley .....	Logan
Neilson, Loren Andrew .....	Sanford, Colo.
Nelson, Nels John .....	St. Charles, Ida.
Phelps, Oscar .....	Mesa, Ariz.
Pond, Bertrand Thomas .....	Lewiston
Olsen, Charles Henry .....	Sandy

*Second Year.*

Armitage, Herbert S. ....	Briston, Mont.
Brown, Bruce .....	Liberty, Ida.
Burnett, George R. ....	Ogden
Carl, John Roger .....	Marion, Ind.
Crookston, Nicholas Lee .....	Logan
Daniels, Earl Edward .....	Logan
Dotson, John Marion .....	Minersville
Fraiser, James Eberle .....	Logan

Izatt, George James .....	Logan
Jones, William Stark .....	Brigham
Jones, Ricy Widerborg .....	Brigham
Kessler, Frederick Clark .....	Beaver
Kirby, William Kennedy .....	Logan
Passey, Parley Clifton .....	Paris, Ida.
Pyle, Guy Everett .....	Opal, Wyo.
Ream, William Wesley .....	Dingle, Ida.
Sneddon, James Yates .....	Aguilar, Colo.
Streeter, Sylvester .....	Mason, Nev.
Taylor, Robert Allen .....	Fremont
Ware, Joseph William .....	Layton
Williams, Percy Julian .....	Ophir

*First Year.*

Anderson, John .....	Heber
Berlin, Frederick Arthur .....	Huntsville
Beus, David Herbert .....	Yost
Bowers, George Mikle, Jr. ....	La Maille Valley, Nev.
Chadwick, Lewis Samuel .....	Morgan
Crabtree, Raymond .....	Idaho Falls, Ida.
Decker, Francis Zachariah .....	Sanford, Colo.
Gardner, Gip .....	Ely, Nev.
Grover, Merlin .....	Fielding
Gunnarson, David .....	Ogden
Hougaard, Melroy .....	Manti
Hancock, Elmer .....	Mendon
Hansen, Bernard Leslie .....	Providence
Hansen, Torbin .....	Logan
Hill, David .....	St. John, Ida.
Hyde, Alma Charles .....	Ophir
Ivie, Jacob William .....	Loa
Kelley, John .....	Ophir
Kroque, Leonard .....	Bloomington, Ida.
Krass, Edward Raymond .....	Ogden



Laurenson, Charles .....	Downey, Ida.
Martin, George Wayne .....	St. John
Manion, William Edward .....	Mountain Home, Ida.
Marcus, Robert .....	Locust
McLaws, Elbert .....	Tooele
Morgan, Willis Booth .....	Collinston
Mortimer, William .....	Logan
Neibaur, Charles Peter .....	Mammoth
Nelson, John Albert .....	Huntsville
Osborn, Warren .....	Ola, Ida.
Pack, Ulysses .....	Kamas
Parkinson, Ray Charles .....	Franklin, Ida.
Peterson, Arthur .....	Ovid, Ida.
Ream, Mitchel Alvin .....	Dingle, Ida.
Ream, Lee L. ....	Dingle, Ida.
Remond, Henry Arnold .....	Midway
Ritter, George Thompson .....	Eden
Schweitzer, Fred Christian .....	Logan
Shupe, Parley Grant .....	North Ogden
Smithson, Marion Charles .....	Milford
Smithson, Edward .....	Garrison
Stephens, William .....	Malad, Ida.
Steed, James Thomas .....	Deweyville
Strate, Abram .....	Spring City
Stevens, Alvin Elmer .....	Bloomington, Ida.
Stringer, Albert .....	Main, Mont.
Summers, Arthur .....	Avon
Taylor, Llewellyn Otto .....	Logan
Wangsgard, Thomas Albert .....	Huntsville
Wall, Charles James .....	Venice
Webb, Heber Jarvis .....	St. George
Weidman, Joseph Lorenzo .....	Bear River
Welling, Truman LeRoy .....	Fielding
Whitter, Raymond .....	Milton

Wilson, Fergus O'Conner .....	Eden
Wood, Linton .....	Mendon

*Winter Course.*

*Second Year.*

Abbott, George .....	Farmington
Blake, Fred Charles .....	Hooper
Dahl, John Walter .....	Hooper
Day, William .....	Layton
Jacobson, Ephraim .....	Logan
Stoddard, Walter Bert .....	Hooper
Swenson, Helga Vincent .....	Pleasant Grove
Worley, Leroy .....	Logan
Worley, William Raymond .....	Logan

*First Year.*

Ashcroft, George .....	Hyde Park
Anderson, Arthur .....	Roy, Ida.
Bair, George Ervin .....	Millville
Baldwin, Jesse A. ....	Moroni
Bauman, Frank .....	Providence
Burnett, Delbert Riley .....	Hooper
Clark, Joseph Albert .....	Liberty, Ida.
Ellison, Parley John .....	Layton
Ellison, Delbert .....	Layton
Ford, Jesse Berry .....	Cedar
Gillett, Laurence Augustus .....	Hooper
Hoffman, Edward .....	Logan
King, Archia Willard .....	Hooper
Larsen, Lewis Lorenzo, Jr. ....	Fairview
Larsen, Severin Daniel .....	Hunter
Lamb, Frank .....	Garland
Larsen, Peter .....	Greenville
Malstrom, Andrew Aloff .....	East Jordan
McIntosh, John Franklin .....	St. John

Powell, Lorin Samuel .....	Logan
Rowland, Thomas Greaves .....	Logan
Reid, Lee Emmett .....	Preston, Ida.
Waite, William Wallace .....	Hyde Park

## COLLEGE PREPARATORY.

*Second Year.*

Bowman, Albert Elijah .....	Ogden
Bowman, George Victor .....	Peterson
Brossard, Edgar Bernard .....	Logan
Brown, Frank Martin .....	Liberty, Idaho
Carr, John Duncan .....	Rock Springs, Wyo.
Cook, Lashbrook Laker .....	Garden City
Cole, Winslow .....	Willard
Dickson, James Barnard .....	Rock Springs, Wyo.
Eccles, Roland .....	Ogden
Egbert, Archie .....	Logan
Harris, Lester .....	Beaver
Hartvigsen, Hyrum Jacob .....	Downey
Jones, Isaac Lewis .....	Logan
Knapp, Alma Johnston .....	Moroni
Kuno, Henry .....	Tokyo, Japan
Maughan, Merrill Owen .....	Logan
McAlister, Clair Horton Snow .....	Logan
Monson, Laurence Christian .....	Logan
Nebeker, Leigh .....	Willard
Peterson, Charles Orrin .....	Logan
Porter, Ralph Orlando .....	Porterville
Ricks, Wilford Albert .....	Rexburg, Ida.
Robinson, David Earl .....	Logan
Sneddon, Thomas .....	Diamondville, Wyo.
Taylor, Parley Paul .....	Plain City
Thain, Wilber .....	Logan
Tovey, James .....	Malad
White, Varien C. ....	Otis, Ida.

Williams, Abednego .....	Kamas
Wooley, Vern Clark .....	Grantsville
Wondersheck, Minnie .....	Hailey, Ida.

*First Year.*

Andrews, June .....	La Grande, Ore.
Anderson, Anders .....	Logan
Brossard, Rolland Elmer .....	Logan
Chase, John .....	Ogden
Clemenson, Wendell Lapsley .....	Logan
Cooper, Raymond Harrison .....	McCammon, Ida.
Doutre, Steven .....	Aurum, Nev.
Fenner, Paul Overtries .....	Anaconda, Mont.
Goodwin, Earl .....	Logan
Hair, William Nicholas .....	Bingham
Hansen, Dolley .....	Hailey, Ida.
Hartman, Thomas Edward .....	Pocatello, Ida.
Holmes, David W. ....	Oakley, Wyo.
Jones, Inez. ....	Montpelier, Ida.
Johnson, Oley Martineus .....	Salt Lake City
Lewis, Lucy Blanch .....	Dingle, Ida.
Martineau, Bryant Sherman .....	Logan
McKnight, Virgil .....	Red Rock, Mont.
Mohr, Ernest .....	Logan
Newey, John Mathews .....	Ogden
Olsen, Arthur Lorenzo .....	Logan
Olsen, Vernon Christian .....	Hyrum
Parke, Ralph .....	Riverside
Powell, Hartlett William .....	Logan
Rigby, Elmer Clark .....	Newton
Shaw, Ray Thomas .....	Paradise
Skinner, James Albert .....	Beaver
Stonebreaker, George Washington .....	Hoytsville
Taylor, Marion .....	Logan
Taylor, Jesse .....	Loa



Washburn, Wilber Wallace .....	Ogden
Webb, Franklin John .....	Butterville
Wendelboe, Diamond .....	Logan
Williamson, Ruby .....	Wellsville
Willey, Joseph Angus .....	Layton
Wilson, Grover Nathan .....	Boise

## OPTIONALS.

Amussen, Mabel Smith .....	Logan
Anderson, Hyrum .....	Logan
Burns, Mary Elnore .....	Logan
Crawford, Chrystie .....	Manti
Clark, Samuel .....	St. Charles, Ida.
Coburn, Roland .....	Weston, Ida.
Cox, Frank Sanders .....	Fairview
Davidson, Ellen May .....	Pocatello, Ida.
Egbert, Nora .....	Logan
Egbert, Maude .....	Logan
Evans, Thomas Jordan .....	Brigham
Farmer, Thomas .....	Logan
Fisher, Martha .....	Logan
Frank, Justus Ray .....	Logan
Greenhalgh, Mabel .....	Logan
Griffin, Mearl Julian .....	Logan
Hansen, Seth Alfred .....	Logan
Hart, Leona .....	Logan
Hartley, Richard, Jr. ....	American Falls, Ida.
Heyrand, Wilford Fred .....	Rigby, Ida.
Jacobs, Fred .....	Logan
Jensen, Alfred .....	Trenton
Kewley, Nan .....	Logan
King, Priscilla .....	Logan
Lee, Mabel Smith .....	Logan
Mathisen, Sophie .....	Logan
Mathews, Ruby Ethel .....	Logan

McKay, Lizzie Odetta .....	Ogden
McLeod, William F. ....	Eureka
Morrison, Bretta .....	Logan
Montrose, Edna Vilate .....	Logan
Nebeker, Mabel .....	Logan
Nibley, Annie .....	Logan
Peterson, Mattie Othelia .....	Logan
Powell, Mrs. Mada .....	Logan
Randolph, William Frank .....	Halleck, Nev.
Roberts, Mary .....	Afton, Wyo.
Robinson, Loie .....	Logan
Rogers, Amelia .....	Paris, Ida.
Ryberg, Eric W. ....	Logan
Smith, William Geraint .....	Providence
Smith, Mrs. Anna .....	Smithfield
Sorenson, James William .....	Neely, Ida.
Sorenson, Thomas .....	Mayfield
Sorenson, James William .....	Mayfield
South, Samuel Rich .....	Randolph
St. George, Dora .....	Butte, Mont.
Tarbet, Albert .....	Logan
Taylor, Phebe Estella .....	Fremont
Thomas, Jennie .....	Ogden
Tuttle, Clara Elizabeth .....	Logan
Turner, Franklin David .....	Logan
Wadman, Ruby .....	Logan
Weston, George N. ....	Laketown
Wood, Alonzo .....	Mendon

SUMMER SCHOOL.

Allen, Mary Jenkins .....	Wellsville
Anderson, Andrew B. ....	Beaver
Atkinson, Eva .....	Clarkston
Atkinson, Rose .....	Clarkston
Bird, Laura .....	Pocatello, Ida.

Bradley, Louise .....	Hyrum
Brown, Mark .....	Ogden
Caine, Blanche Elise .....	Logan
Cardon, Louis Paul .....	Dublan, Mexico
Casto, George Daniel .....	Salina
Catmull, Mary .....	Benson
Christensen, Esther .....	Logan
Christensen, Lawrence .....	Logan
Clark, Edward J. ....	Logan
Coburn, John Leathem .....	Wellsville
Crookston, Alice .....	Greenville
Darley, Sarah Thirkell .....	Wellsville
Darley, Sarah Gunnell .....	Wellsville
Davis, Charlotte Rachel .....	Leorin, Ida.
Egbert, Maude .....	Logan
Erickson, Ephraim .....	Preston, Ida.
Erickson, Alma D. ....	Preston, Ida.
Forgeon, Mildred .....	Logan
Griffiths, Margaret .....	Benson
Hanson, Agnes .....	Logan
Harding, George David .....	Willard
Hillyard, Inez .....	Smithfield
Hobson, George Cornelius .....	Logan
Hobson, Gertrude .....	Logan
Hull, Alvin C. ....	Whitney, Ida.
Jackson, Emma Louise .....	Avon
Jacobson, Eunice E. ....	Logan
James, Florence .....	Paradise
Jensen, Christian Nephi .....	Ephraim
Jensen, Eliza .....	Logan
Jensen, William Arthur .....	Logan
Johanson, Anna .....	Morgan
Jorgensen, Orilla A. ....	Logan
Jorgensen, Rhoda E. ....	Logan
Larson, Rudolph Victor .....	Smithfield

Law, Nomah M. ....	Avon
Lemmon, Adelia .....	Mendon
Lillywhite, William M. ....	Logan
Madsen, Eunice .....	Manti
Mathisen, Sophie .....	Logan
Mathews, Hannah .....	King
Merrill, Ada Rebecca .....	Richmond
McCarrey, James L. ....	Logan
McClenahan, Ellis .....	Mt. Pleasant
McCracken, Sadie Shaw .....	Smithfield
McKinnon, Malcolm .....	Randolph
Moore, James Henry .....	Joseph
Morrison, John A. ....	Franklin, Ida.
Nelson, Frank O. ....	Richmond
Olsen, Christian Frederick .....	Hyrum
Parkinson, Elva .....	Hyrum
Patterson, Alexander C. ....	Hooper
Pearce, Nellie .....	Montpelier, Ida.
Peterson, Othelia .....	Logan
Peterson, Eliza .....	Logan
Porter, Charles Walter .....	Logan
Price, Lloyd S. ....	Paradise
Ralph, Anna May .....	Hyrum
Richards, Jennie .....	Mendon
Roberts, Vida Margaret .....	Layton
Smart, Zella .....	Logan
Smith, Gertrude .....	Logan
Spieriman, Marie .....	Logan
Sorenson, Mary E. ....	Logan
South, Samuel Rich .....	Logan
Styer, William Delp .....	Logan
Taylor, Ida. ....	Willard
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Ward, Cora .....	Provo
Wilson, Esther Lucy .....	Hyrum
Zundel, Maria .....	Willard



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	740
Names repeated .....	23
Total registration .....	<hr/>
	717

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	740
Number of names repeated .....	23
Total registration .....	<hr/>
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UNIVERSITY OF ILLINOIS-URBANA



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**The College Bulletins are issued quarterly by the Agricultural  
College of Utah. Entered as second-class matter  
at the post office at Logan, Utah**